THE

AMERICAN FARMER,

AND

SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." . . . . *Virg.*

Vol. III. **BALTIMORE, NOVEMBER, 1847.** **No. 5.**

WORK FOR NOVEMBER.

As this month is one which, in the natural course of the seasons, the farmer has a right to expect severe frosts, if not *snow;* it should be the duty of each and all to so put forth their strength as to be able to husband everything the product of the farm which is liable to be injured by exposure to the weather. To toil as agriculturists do through the year to make a crop, it would seem to be sinful in the extreme, after having through the kindness of Providence succeeded in our efforts, to let it by neglect become impaired in value. There is no class of society whose business requires a strict adherence to system more than that of the agricultural; a few days delay in doing a thing will often operate as a bar to full success throughout an entire season, and hence the applicability of that apothegm, which is so cherished by systematic farmers—do everything at the right time—and we will add, do it well.

Accumulation of Manure.—As *manure* is the gold mine of agricultors, and as this is the season when the materials for forming it may be gathered to the best advantage, we shall commence our hints of the work to be done, by recommending that all should lay themselves out to collect and deposit in their cow yards every description of substance within their reach, which by decomposition is capable of being converted into manure, as leaves and mould from the woods, pine shatters, marsh mud, weeds of every kind, scrapings from the lanes and roads, chips from the wood cuttings, and all kindred bodies, as all these by being spread in basin-like form over the surface of the cow-yard, so as to prevent the escape of the liquid voidings, will not only become valuable manures by the process of decay, but act as absorbents and retainers of the nitrogenous or volatile portions of such substances while undergoing those processes which convert ligneous substances into the food of plants. It would be better to have the compost heaps under cover, as that would prevent the deterioration consequent upon exposure to the rains and snows, but as that is more than we have a right to expect in the present state of agricultural improvement, we will content ourself with respectfully requesting that the materials we have named should be collected and deposited as we have pointed out, and that the yards thus provided, be occasionally sprinkled over with ground plaster, to aid the other materials in the office of fixing and preventing the escape of the ammonia from the decaying bodies as it may be formed.

By attention to the duty we have here pointed out there is no farm which may not be made to furnish a full supply of manure for all the crops usually put in in the spring, as corn and roots generally, for of a truth it may be said that any substance which will rot is capable of being converted, by the means we have indicated, into good manure, and this will not be considered an exaggerrated opinion when we state the fact, that each head of stock voids urine enough almost daily to nourish by its ammonia a bushel of grain, hence the imperious necessity which addresses itself to the mind of the economical farmer to avail himself of all practicable means to preserve it from loss by evaporation or by being washed away. We do not pretend to say that, by adopting our plan, the *whole* of the ammonia may be saved, but we do affirm that so much may be as will render the manure in the yard in the spring fifty per cent. better than it would be if the old slovenly habit of managing the cow-yard, of permitting each succeeding rain to wash away its enriching salts, should be continued.

Corn Stalks.—As we are aware that the hay-crop throughout a very considerable extent of our country has been a short one, we are apprehensive that the provender of stock will be limited, and, therefore, recommend that so soon as the corn may be safely gathered, that it be so, and the corn-stalks be cut down and stacked secure from the weather and kept in reserve to feed the cattle with. We do not pretend to affirm that they will make as nutritive food

as clover or timothy hay, but we feel prepared to advance the opinion, that, if cut in inch pieces and steamed, they will make a very good substitute for either, and will be found fully equal to straw in every quality calculated to sustain the animal system. They should be however gathered and protected as soon as possible, in order that their virtues may not be leached out of them by the winds and rains.

Corn Husks and Corn Cobs.—As the economy of cattle feed comes commended to us, we will here take time by the forelock to say that all of these should be carefully preserved to be fed to the cows and oxen. The first we know are cared for with that view, but the latter too often find their way to the fire of negro quarters. This is a practice which should be abandoned, as the corn cob contains no inconsiderable quantity of nutritive matter, besides possessing very decided traces of phosphoric acid, a substance vastly important alike in the maintenance of integrity of action in the formation and preservation of animal bones. Corn-cobs before being fed should be *crushed* and steamed, and would be still more desirable as food, if a small portion of bran or meal of some kind were mixed with them. For milch cows the latter mode of feeding them is particularly desirable.

Roots of all kinds.—These should be taken up and put away with care before they receive injury from frost—if packed in the open air, not more than fifty or a hundred bushels at farthest should be put in a single heap: they should have sand put between each layer and at the top, and then covered with several, say 8 or 10 inches of earth, so formed as to carry off all rains: at the surface, drains should be constructed to convey away the water as it may fall, and the preservation of the roots would be promoted by having a ventilator to carry off the air as it may be formed in the heating process to which all vegetable bodies are subject.

In-calf Cows and Heifers.—As the frost has or soon will have despoiled your pastures of their verdure, and your woods no longer furnish a supply of nutriment to your cows and heifers in calf, be careful to provide additional food, as it is important they should enter into their winter quarters in good condition and vigorous health, these being essential pre-requisites to carry them well through the winter and spring, as well as to ensure them that vigor and energy of constitution necessary to enable them to meet those demands upon their strength which are made when they are about to become mothers. Such animals should invariably have good warm dry quarters to protect them from the elements at this season, as well by day as by night—without they are thus provided a portion of all the feed you may give them will be expended in furnishing heat to their bodies.

Working Oxen and other Stock.—These animals should be provided with quarters at night either in a stable or good warm sheds—it is important that they should be able to sleep both *dry* and *warm*, be provided with plenty to eat and good bedding.

The *young* should be kept in a seperate yard from the old, and if there be any master beast among them he should be tied up to keep him from worrying the more docile animals, as well as to prevent him from appropriating to himself a larger portion of the feed than is rightfully his own. Indeed, it would be good policy to accustom all the young cattle to be tied up at *night*, as it tends to render them more tractable and easier handled when it may become necessary to milk or break them. When tied up, good beds of leaves or straw materially add to their comfort.

Sheep.—The sheep should be provided with a good shed into which they can retire whenever they please; without being *entirely* closed, it should be sufficiently so to keep them from the injurious effects of rain and snow. In this racks and troughs should be provided to feed them. They should be weekly provided with fresh straw for bedding, and especial pains should be taken to keep the place clean. They should be regularly supplied with salt throughout the season, say three times a week; in a trough to be under cover there should be weekly supplies of fresh tar to be spread over with salt—to this they should be furnished with boughs of the pine twice a month.—Where wool is the object small quantities of *bean meal* should be allowed them in addition to their long and root feed, as the beans contain more of the wool forming principle than any other vegetable food.

Salting of Stock.—We desire to impress this truth upon the minds of our readers—that, to preserve the health of stock, it is necessary they should receive salt at short intervals—say at least twice a week. A very excellent substitute for salt may be found in a *mixture* of equal quantities of *salt*, *ashes*, and *lime*, (lime made from oyster shells preferable on account of the phosphate it contains). The ashes should be sifted before being mixed with the other substances.

Chopping Feed.—As grain when chopt goes farther than when fed whole, by at least 25 per cent., we recommend that all grain fed to horses and cattle should be thus prepared and mixed with cut straw or hay. This saving in the consumption of grain is worthy of being attended to, as it will enable the farmer to sell so much more than he otherwise could, thereby putting so much more money into his pocket. But independent of the saving, by chopping the grain you present it in a form to the stomach of the animal which is easier digested, and which, consequently, tends more to encourage the elaboration of flesh and fat.

Orchards.—Dig around each tree for some four or five feet from its body, to the depth of three inches, turn out the earth, mix with it a gallon of unslacked lime, and leave it in pie until the lime slacks; then thoroughly incorporate the earth and lime together,

and return it to the place whence it was taken. If your trees have not already been so treated, give them a coat of the following mixture, first rubbing or scraping off the coarse bark, 1 gallon of soft soap, 1 lb. sulphur and 1 pint of salt. Stir the whole together well and put it on the body of the tree with a brush, from the roots as far up as the branches.

Planting out Orchards.—Every farmer should have an orchard upon his farm of choice fruit, and to such as have not one already we would recommend that he seize the occasion of the present month, the earlier the better after the leaves shall have fallen, to plant out one, as the trees will be growing while he may be sleeping, and in a very few years will afford him fine fruit for family use or for sale, provided he is careful in purchasing the most approved kinds of grafted fruit from some nurseryman of established reputation, takes proper care in the selection and preparation of the ground, in the mode of planting and after culture. That he should do so it is but natural to suppose, as the planting of an orchard is a work that is to last for a life time, and therefore should be done well.

The Soil—The soil for an apple orchard should be rich and moderately moist—the soil should be deep naturally or made so.

The *exposure* should be north or north-west.

The *preparation.*—All soils intended for the transplantation of an orchard should be both *ploughed deep and sub-soiled.* If it be not naturally rich, it should be manured with a compost formed, say, per acre, with 20 loads of well rotted manure or mould from the woods, 50 bushels of ashes or lime, to be well mixed together, spread evenly broadcast, and ploughed in. The ground should then be harrowed and cross-harrowed, and rolled.

Digging the holes, and planting the trees.—The holes should be dug about *three* feet deep, *six* feet in diameter. As the surface mould is taken out let it be laid aside, and mixed with a sufficiency of rich mould as will fill up the hole when the tree is planted, carting off or spreading the subsoil which may be excavated on the surface. At the bottom of the hole place gravel stones or small brick-bats, for 6 inches in depth, then fill up to the depth of say 18 inches with the mixture named above.

This done, place your trees in the holes to the depth, or nearly so, that they may have stood in the nursery, first taking care to trim off smoothly, all the roots which may have been broken. Set the trees straight up, spread out the roots, fix a stake in each hole to tie the tree to; fill in the earth a few inches and pour in water from the nozzle of a watering pot enough to settle the earth around the tree, but not enough to make a kind of mortar, then fill in more earth, and settle it again with water, now fill up the hole with the residue of the earth, and form a slight basin around the trunk of the tree, press the earth down with the feet and tie the tree with a withe of straw or bass matting, when the labor of planting will have been done. If the trees shall have been out of the ground any considerable time before being planted, it will be well to soak the roots a few hours before setting them in the ground. When your orchard is planted out, sow a mixture of freshly slacked lime and ashes, in equal quantities, for 4 feet around each tree, about a gallon to each. If the next spring or summer should prove to be dry, the young trees should receive occasional waterings, not only around the body of the trees, but over their bodies and branches also. The water should be either from a running branch or stream, or rendered temperate by exposure to the sun during the day of its application. The best *time* for watering is just before sun down.

Young Orchards should be cultivated the first five or six years, in *corn, potatoes, cabbages* or *turnips*, but during this period of their growth should never be burthened with a small grain or grass crop. They should at all times be lightly ploughed so as to keep weeds down and the soil open to the action of sun, air, and rain. If such cultivation as we name should not be given to the orchard ground, it should receive a moderate dressing of rich mould or well rotted manure every few years, say once in four years.

Fences.—Every panel of fence on the farm should be carefully examined and thoroughly repaired. If your fields have *bars* as the mediums of entrance, do substitute gates for the bars.

Corn Houses.—Examine these, and if you find rat-holes stop them up. Then thoroughly cleanse out your corn cribs, by sweeping and washing with strong ley; that done give them a good white washing inside and out, so that they may be thoroughly clean and dry, ready to receive your corn when gathered. *Fresh* slacked lime spread in a circle around the corn cribs an inch deep it is said will keep off rats and mice. We do not vouch for its efficacy, but as the experiment is a cheap one it might be tried.

Poultry Houses.—These should be thoroughly cleansed and white washed, walls, roosts, and nests. At this season there should be kept convenient to the hen-house, both lime for the fowls to pick at and ashes for them to dust in: and he who desires his hens to lay through the winter must feed them well, alternating their feed between corn, oats and buckwheat, and give them, say once a week, small messes of fresh meat chopt up very fine.

Fattening Hogs.—As soon as the mast and nuts of your woods cease to afford food for your hogs, pen them up,—first providing their pens with materials to be converted into manure, as earth, mould, leaves and weeds. When you first pen your hogs give to each a tea-spoonful of flour of sulphur in messes of moistened meal or bran—repeat this every other day for a week, say three times. Then you may commence your regular feeding. It is best to cook whatever pumpkins you may feed, mix a little meal with each mess, which should be seasoned with

salt. The hogs should be provided with a rubbing-post—have dry covered apartments to sleep in, receive daily portions of charcoal and rotten-wood, as these are as necessary to keep the stomach in *tone*, as corn and meal are to make the hogs take on flesh and fat. A handful of well sifted hickory ashes given in *mess* feed occasionally will be found to be conducive to the health of the hogs.

Above all things let not the farmer forget that the hog is one of the best animals to manufacture manure, and that every cart load of mould which he may supply to his pen, that he will every seven days convert into good manure. The hogs should, at least twice a week, have salt put in his *trough*, that being first cleaned out and dried. He should also receive fresh water twice a day.

Gathering Apples.—Pick these by hand so that they may not be bruised, put them away in an airy room to sweat, then have them re-handled and wiped with a cloth.

Draining and Ditching.—This is a good month for this work. If you have any fields that are too wet for healthful culture, have them drained thoroughly, and you will add fifty per cent. to their arable value.

Threshing out Grain.—We advise all farmers to have their grain threshed out, in order that they may be in a condition to send it to market at the most favorable period.

Cider making.—In making your cider, exclude all rotten apples, as a peck of such fruit will destroy a hogshead of cider. Let the pumice be given to your milch cows mixed with bran or meal and cut hay or straw.

Fall Ploughing.—As all stiff clays are greatly improved by being subjected to the action of frost, if you have any fields of that description have them forthwith ploughed, lapping the furrows at an angle of about 45 degrees, so as to expose to the action of the weather the greatest surface. But you must bear in mind that stiff clays should never be ploughed when they may be said to be *wet*, but that you should select that period when they are neither wet nor dry.

Cow Sheds.—If you have not already provided your cattle with cow sheds, do so without further delay—humanity to the beasts, as well as interest to yourself, call out for their erection.

Fire Wood.—So soon as the leaves have fallen hie to the woods and have as much fire-wood cut down as will serve you a year. As soon as felled have it hauled home and neatly piled up for seasoning and use.

Apple Butter.—As this is the season for making this, see that a supply is made for your family.

Wagons, Carts, Gearing, Implements of Husbandry.—Have all these collected together, examine each carefully, repair those that need repairs, and have the whole put away safely under cover.

Substances for Manure.—Have *fifty* loads of earth hauled convenient to your dwelling, make it up into a cone-like form, hollow out the top so as to form a kind of basin. Into this basin have all your chamber ley, soap suds, and dish-water, poured from now until spring. Immediately after every emptying, have half a gallon or gallon of plaster strewed thereon, and next spring these *fifty* loads of earth will have been converted into so many loads of the very richest manure you ever had on your place. Try the experiment, it will cost you nothing but the labor, and our life on it, you will practice it during the residue of your life. The heap to be mixed before being used.

We have thus sketched such hints as presented themselves to our mind, and enjoining it upon you to supply everything we may have omitted, we shall conclude by wishing you health and happiness.

EFFECTS OF MARL AND SHELL SANDS.

Professor *James F. W. Johnston* sums up the good effects of these substances in the following manner:

"The *observed* effects of marls and shell sands, in so far as they are chemical, are very analagous to those produced by lime as it is generally applied in the quick or slacked state in so many parts of Ireland."

"They alter the nature and quality of the grasses when applied to pasture—they cover the undrained bog with a short rich grass—they extirpate heath and bent, and useless moss—they exterminate the weeds which infest the unlimed corn-fields [wheat fields,] they increase the quantity and enable the land to grow a better quantity of corn—they manifest a continued action for many years after they have been applied—like the purer limes they act more energetically if aided by the occasional addition of other manure—*and like them they finally exhaust a soil from which successive crops are reaped, without the requisite return of decaying animal or vegetable matter.*"

We have transcribed these views of professor *Johnston* because we hold him to be one of the ablest agricultural chemists of the age, and because he appears to us to have taken especial pains to base all his theoretical views upon agricultural facts, so as to produce a correspondence between theory and practice. In thus arraying the evil tendency alongside of the resulting benefits which follow calcareous applications to the soil, professor *Johnston*, not only manifests his candor, but entitles himself to the gratitude of the agricultural community for the warning which he gives them, as to the *abuse* of the use of lime. From the facts presented, as to the good and injurious effects of lime, we deduce this conclusion, that it is unsafe to lime land where the clover culture does not form a part of the farmer's rotation, inasmuch as it is necessary to return to the soil a body of either animal or vegetable matter for the action of the lime. Soils which may have been long in culture, though *apparently* exhausted, have, in the course of cropping, become charged with considerable quantities of inert vegetable matter, the which, on the application of lime, becomes

transferred into decomposing bodies, and hence converted into nutrient manures for the growing plants. This is one of the offices performed by lime, and although it be capable of converting dead ligneous matter into the food of plants, yet it can only do so so long as there may be such material in the soil to be acted on—whenever the supply shall become exhausted, so does the power of lime to do good, and hence the absolute necessity, as suggested by the learned professor, of returning to the soil materials to be decomposed and formed into the pabulum of plants. In a word, we hold it that lime is an excellent thing, but it is not *all* things—it will perform its offices faithfully and well, but it must have wherewithal to perform these offices with—we hold *lime* to be indispensible to all fertile soils—we believe that no soil can be fertile without it, but yet it must be aided by the materials indicated or the anticipated benefits will not be realized.

The communication of "X." is ingenious, able, and well written, though we think he has fallen into a very common error when he assumes as the theory of *Liebig*, that plants derive *all* their support from the air. Equally do we think him to be in error, when he endorses the following opinion of *Petzholdt*—"that to incorporate buckwheat with the soil cannot enrich it, since by this operation can only be returned to the soil what the buckwheat had drawn from it." This opinion is, in our view, contradicted by the *theory* which X. has apparently adopted; for if it be true that *all* the sustenance of plants are derived from the air, the buckwheat, on being ploughed in, imparts to the soil that which it did not possess before, and to that extent must enrich it. Now, our belief is, that plants derive portions of their food both from the soil and from the atmosphere, and, therefore, that the ploughing in of green crops, be they whatsoever they may, to the extent of that portion of their food which is drawn from the atmosphere is the soil increased in its fertility, and that from the construction of buckwheat, owing to its broad series of leaves, that that plant is among the most active fertilizers to be ploughed in, because from its very conformation, it is calculated to draw more sustenance from the air than other plants whose leaves are narrower, and therefore less adapted to appropriate to themselves atmospheric gaseous food. It suggests itself to our mind to be consistent with theory as well as practice, that if you return, in a green crop, to the soil, nutritive substances that have been extracted from the air, in the form of organic bodies, that these substances must there remain to undergo the process of decomposition, and that whenever such decomposition takes place, that the plants which may be grown thereon must be benefitted thereby. If the *air* was alone the source of *fertility*, where would be the necessity of manuring at all? And yet, we never apply manure of any kind whether from the barn-yard, stable, pig-stye, marsh or woods, but we see the most pleasing evidences of improvement both in the product of the crops and in the mechanical texture of the soil. So far as we are able to form an opinion, derived alike from *theory* and *practice*, we believe that every substance whether vegetable, animal, or mineral, given to the earth improves it: that the one substance is just as necessary as another to increase the fertility of the soil: that where from long continued cropping the mineral resources of the soil have been abstracted by the crops grown thereon and carried off, it is essential to renew such losses by the application of lime, marl, ashes, phosphate of lime and bone earth; that by combining a judicious course of vegetable, animal, and mineral manures, the most exhausted soils may be restored to their original fertility, if not carried beyond them: that worn out lands cannot be sensibly and lastingly improved by any system which does not embrace all these substances: and that farmers of *small means* may very safely use *less* than the *maximum* applications of mineral manures, with the certainty of deriving profit therefrom; that periodical applications of 25 bushels of lime, its equivalent in marl, or ashes, at intervals of four years, on *poor lands*, if accompanied by applications of vegetable and animal manures, clover and plaster, will ultimately bring such lands up to a state of desirable fertility; and that the ploughing in of green crops, as buckwheat, peas, and kindred plants, will be found to be eminently promotive of accelerating the degree of improvement desired to be reached: that farmers of *ample means* can sooner reach the goal by the use of more energetic applications, should not in the least deter those of light pockets from exerting themselves to the extent of their moneyed ability, for they too, will arrive at the same point by a sure though slower road.

We notice by the report of the Prince George's Agricultural Society, held at upper Marlboro', that Messrs. Sinclair & Co., of this city, exhibited a large collection of valuable agricultural machinery, plows, &c., and were awarded the following premiums of merit, viz:

For their Maryland self-sharpening centre draught Plow, 1st premium.

For their improved Davis' Plow, 2d premium.

For the best Horse Power and Thrashing Machine, a premium.

For the best Wheat Fan, Watkins' patent, a premium.

For the best domestic Corn and Chopping mill, *an especial premium.*

For the best sett of Cultivating Implements a premium.

Their late improved Eagle Corn Shellers were much admired, but no premium being offered for Corn shellers, they were merely favorably noticed, and all that were on the ground purchased by the committee.

RENOVATION OF WORN OUT LAND.

To the Editor of the American Farmer :

I have read with much pleasure, the articles of Col. *Capron* and "*A Learner*," on this subject, and although from habit disposed to side with "A Learner," am persuaded, that both are right; in other words, *under certain circumstances the high pressure system of Col. Capron is the best and most profitable ; under others, the self-improving system of a Learner.*

I have always heard it said, that a man should count the cost before he builds, and this holds good in the improvement of land; and there are men who have lost both house and land by neglecting this.—That Col. *Capron* counted the cost, at least afterwards, if not before, his figures prove, with the exception of one item, the 28 bushels of Plaster mixed with Guano and also spread over the field, and that the Colonel has really improved his land cannot be doubted; and the improvement will be permanent, if the land hereafter is kindly treated. For this the coat of Clover is a voucher. But could this system of improvement have been carried on, if the farm had been situated far from market and in a region altogether agricultural? I guess not. Why sir, there are neighbourhoods where a man could not get 2600 bushels of ashes in 26 years, and where every ton of ground plaster costs, delivered on the farm, ten dollars, and where the average price of oats is from one shilling to twenty-five cents per bushel, and often dull sale at that. Would it be prudent in such a situation to undertake the improvement of land on the high pressure system? Nay, let us in addition to this take into consideration, that the great majority of farmers have to live out of the proceeds of their farm, and therefore cannot afford to spend their crops on the improvement of their land. But what does Mr. Edmund Stabler say to this? It is certain that this gentleman has done wonders; but could he have done so, if he had lived on some inland farm, at a great distance from market? Moreover, he probably did not depend on his farm for a livelihood, as I infer from his saying: "as my resources increased both from the improvement of my farm and *otherwise ;*" therefore even his case affords no proof, that the high-pressure system can be advantageously pursued by the farmer that lives entirely by the sweat of his brow. Hence I believe, that I am right in maintaining that land can only be improved advantageously on the high-pressure system under certain circumstances, and these are, favorable location, nearness to market, cheap modes of conveyance to and from the farm, regular opportunity to obtain the highest market price for the proceeds of the farm; facilities for obtaining labour at the time wanted, to buy manure, extra resources either in the possession of a plethoric purse, profession or handy-craft. Where these or at least most of these do not exist, the Self-improving system of "*A Learner*," must be adopted. "*A Learner*" says, "*skill* (in agriculture) *is the art of making the soil improve itself, whilst it yields a support.*" Now, Mr. Editor, this is the true and the only principle on which the majority of farmers can act. We have no other resources of getting a living than our lands, and cannot spend all their products in improvements, and yet if we do not improve our lands, they will of themselves deteriorate; we must therefore adopt such a system of agriculture as will enable the soil to improve itself. "*A Learner*" makes another most excellent remark: "*the capacity of the soil for Self-improvement is unlimited, and it is in this mainly, that we must rely.*" I call this an agricultural axiom. It is a pity that "A Learner" does not give the *modus operandi* of his Self-improving System. We hope that he will do so in a future number, and in the mean time will take the liberty to give ours. The elements of our Self-improving System are Clover, Plaster, rest, Liming in certain cases, manure made of every thing that will rot; all hay, straw and fodder used on the farm, cattle or sheep, and a regular system of rotation and work done in season and well. No man can tell another how he ought to manage his farm in all the minutiæ of farming operations; the general principles may be laid down; but then every farmer must judge for himself as to the best course to pursue under certain circumstances; thus for example, no regular system of rotation can be pursued on a farm, for often grass seed will fail to come up, and therefore, a field that in the regular course of rotation, was to have been ploughed up must lay over, and a field that was to have been laid down, must be worked; but suppose we were placed on an inland farm, we would pursue a course somewhat like the following: We would lay the farm off in small fields, and undertake the improvement of one such field at a time, cultivating however, as many of the other fields as our necessities would require; we would sell no rough feed, but feed it to cattle or sheep; put all the manure made, on the field to be improved, take one crop off of it, sow in clover, and plaster; feed or mow this the first year, but let it be untouched the second; then turn the coat of clover under after harvest, sow in wheat or rye, and thus keep on. In the mean time another field would be taken in hand, to be treated in the same manner, and thus on, until the whole farm has been taken through a course of clover; and with every cycle of two years our resources for the improvement of our farms would have increased.—This is the very course pursued by a neighbor of mine, who living on very indifferent land, has, nevertheless, good crops, and is at the same time improving his farm. By the way, this neighbor of mine declares, that he only is deserving of the name of farmer, who raises good crops and at the same time is improving his land. It may be said, that this system of self-improvement does not suit for really poor land; but it may in return be said, that it does not suit to improve really poor land in the interior. I will now take my leave, begging both Col. *Capron's* and "A Learner's" pardon for interfering, offering as my excuse, that I considered them both to be in the right.

THE DUTCHMAN.

Shenandoah Co., Va.

SUBSTITUTE FOR ASHES ON LAND.

The following mixture will, where ashes cannot be procured, do for an acre of ground, and perform nearly the same offices as would a hundred bushels of ashes:

Potash, - - - -	100 lbs.
Carbonate of Soda, - -	100 lbs.
Sulphate of Soda, - -	35 lbs.
Common Salt, - - -	35 lbs.
	270 lbs.

Mix the whole thoroughly together, and sow by hand, distributing it evenly on the surface; then lightly harrow it in—the same quantity sown broadcast on an acre of ground in grass, will very sensibly increase the product, and will last throughout a rotation.

IMPROVEMENT OF WORN-OUT LANDS.

To the Editor of the American Farmer.

The subject on which Colonel Capron and "A Learner" have been engaged in your paper,—the improvement of land—has long been a vexed question with the writers on agricultural science. The Colonel and "A Learner" argue from personal practice and observation; the men of theory from chemical analysis and vegetable physiology: and the argument seems as little susceptible of a satisfactory conclusion in the one mode of handling it as the other. On the side of Col. Capron are the recent agricultural chemists, as their doctrine has been expounded by Petzholdt, a zealous disciple of Leibig, and an agreeable and even elegant writer. On the other side is a long array of Professors and approved authors, and the great mass of practical men. It is certainly the most important question which can be presented to the attention of farmers; as on the solution of it depends the right system of all cultivation and improvement. I therefore venture to offer your readers a brief exposition of the history and merits of this discussion, as it appears in the books.

First to state the question. One side are of opinion that poor land may be made fertile by green manuring; in other words, that the land may be made to enrich itself, by its "capacity for self-fertilization," as A Learner expresses it. The other side hold that green manuring can give no land any element of fertility which it does not already possess; that ploughing in green crops is of very small and temporary efficacy; that if you mean to enrich poor land, you must get manure and put it on.

Neither Col Capron nor A Learner belong strictly, as they have defined their positions, to either side of this argument. Col. Capron is not opposed to green crops; but he starts with, and bases his improvement on mineral manures. Nor does A Learner reject manure; on the contrary, he is careful to collect and apply all the animal manure made on the farm. But as in our system, where so much land is under cultivation, this is so very inadequate a supply for the whole farm, and as he condemns the purchase of mineral manures, he must rely for the "self-fertilizing" improvement of his land on clover and the green crops. These gentlemen, therefore, in effect and practically, belong to the side I have assigned them. Col. Capron relies on mineral manures—A Learner on green crops.

The old *humus theory* as it was once understood is now rejected by all scientific writers. That theory supposed the fertility of land to depend entirely on the vegetable mould or humus it contained; in other words, on that deposit in the soil which results from vegetable decay. This humus is indeed composed of two parts: the organic, and the inorganic remains of plants. The organic matter of plants is that part which is destructible by fire, and which disappears during combustion. The inorganic part is the ashes that remain after burning, and contains the mineral constituents of the plants. Now as the organic part constitutes nearly the entire plant, being from 88 to 99 per cent of the whole, the inorganic remainder was disregarded by theory as accidental and insignificant, both in the composition of the plant, and in the humus; and both the nutrition of plants and the fertility of the soil was by the humus theory referred to the organic part of vegetable mould.

When, however, chemical analysis was brought to the investigation of vegetable physiology, it was soon evident that these inorganic constituents of plants were essential elements. It was soon found that every plant has its peculiar ashes, or mineral remains; and that the same plant grown in whatever soil has the same mineral constituents. It was thereby proved that these mineral substances are essential parts of the plant. After that, in the progress of analysis and experiment, all these mineral elements were nicely and exactly ascertained for each plant, and the presence of all of them found in all good soils; and it was further proved that no soil however rich in organic matter could produce, or at least mature any plant, if it did not contain every mineral substance which was shown by chemical analysis to enter into the constitution of that plant. It was also remarked practically, that some soils, the richest in organic matter, were nearly barren, while other soils of the proper mineral constitution, though poor in vegetable matter, containing less than 3, and sometimes less than 1 per cent, were among the most fertile of all lands. There remained therefore, no longer any foundation for the humus theory.

Thus far chemistry had corrected a great error. It had shown that certain minerals are a necessary constituent of every plant, and a necessary element in every fertile soil. And to this extent, there is now an entire agreement among all those writers who pretend to teach agriculture as a science. But the chemists have not rested at this point, with demonstrating the presence and necessity of these minerals in plants and soils, but they deny that the organic part of humus is of any use to the soil, or furnishes any food to plants. Chemistry having resolved this organic part into its elements of carbon, oxygen, hydrogen, and nitrogen, the chemists have undertaken to trace these elements to their origin, and assert that they are derived all from the air and water, and none from the soil. It is not within the limits of a slight paper like this, to detail the series of admirable experiments and ingenious reasoning on which they found this conclusion. But a summary of the results at which they arrive may be stated in the language of Petzholdt, who has followed the course of the experiments with brevity and clearness, and deduced the conclusion in a forcible argument. Those who wish to read a beautiful discussion of a scientific subject, will find it in Petzholdt's Agricultural Chemistry, in the chapter on the "carbon of plants."

Having shown that plants grow in water, and in air, and in soils where there is no humus: having shown how the leaves absorb and decompose carbonic acid, and how the amount may be collected and measured, he concludes—"We have thus proved—1st—that plants grow without humus. 2d—that humus when present contains but a small and insignificant part of the carbon found in the growing plant. 3d—that when carbon is supplied in animal and vegetable manure, its amount is much less than that removed from the field in the harvest. 4th—that if there were an adequate supply of humus in the soil, there is not in all the rain that falls an adequate supply of water for its solution—and of course insoluble humates cannot enter into plants. On the other hand, carbonic acid in the atmosphere is in constant contact with plants. This supply is always present; what is consumed is continually supplied and renewed. It is proved too, that the leaves of plants absorb carbonic acid, give off the oxygen, and retain the carbon. Hence is evident the source of the carbonaceous elements of all growing crops.

In like manner, and by a similar train of chemical observations, he derives the oxygen, hydrogen, and

nitrogen of plants from the water, carbonic acid and ammonia of the atmosphere; and concludes that the organic part of humus furnishes no food for plants, and contributes nothing to the fertility of the soil.

To the counter-argument, that plants grow *best* in soils that contain some humus, he answers that it is due to the mineral elements of the humus.

All this seems quite sufficient to build a theory on. It is difficult to find a defect in the argument, or to resist the conclusion to which it leads.

At this point, however, is the existing controversy with the physiologists. Professor *Johnston* goes with the mineral school in rejecting the humus theory as furnishing by organic decay the whole or principal part of the food of plants, in recognizing the mineral elements of both plants and soils, and the necessity of a proper supply of these in all manures; but he does not admit their conclusion that the organic matter in humus is no part of the food of plants. On the contrary he maintains that plants derive an important part of their carbon and nitrogen from vegetable decay.

In regard to the carbon, he cites the experiments of Boussingault, who ascertained—1st, the amount of carbon in a given soil; 2d—the amount added in manure; 3d—the amount in the crop; 4th—the amount remaining in the soil afterwards; by which it appeared that when the same amount remained in the soil, as was found there in the beginning, the quantity in the crop was three times that in the manure; hence two thirds of the carbon had come from the air, one third from the soil and manure. Professor *Johnston* assumes the same calculation and conclusion; but he adds, that as much of the carbon of the manure and soil must have escaped into the air as carbonic acid, during the five years course of these experiments, it is evident a much larger proportion than two thirds must have been derived from the air. Still, however, he assumes the two thirds as his general average, and reckoning 1½ tons to be the common product of an acre, and half of this to be carbon, he calculates 10 cwt as the amount of carbon derived from the air, and 5 cwt. from the soil per acre for each crop.

It must be admitted, however, that in strictness of logic, the Professor abandons his conclusion in the admission by which he qualifies it, and in fact surrenders the question. For if any of the carbon have escaped into the air, (and he admits a large part) why not the whole? That, in fact, is exactly the new theory. This decomposition in the soil, and escape of carbon in the form of carbonic acid, is, by that theory, one of the great sources of supply to the grand reservoir, the air. But it is denied that this escape in the immediate neighborhood of the growing plant, benefits it, by being seized and applied to its special use, inasmuch as the supply every where is abundant, and the composition of the atmosphere, in this respect, uniform. We must admit, I think, that neither the negative, nor the affirmative seems susceptible of chemical proof.

On this subject, Mr. Editor, we cannot fail to recognize with wonder, the complete revolution already in the theory, if not as yet in the practice of agriculture, a few years have produced. 25 to 40 years ago, *Thaer* was the great teacher of agriculture, both as an art and a science—practically and theoretically. His books were of universal authority; his farm was the model farm of Germany. Even the French generals, in overrunning Hanover, paid an uncommon tribute to the fame and usefulness of a man of his condition, by ordering his property to be protected and exempted from military exactions. By the way, if we had the exact mode of improvement by which he brought the sands of Moglin to so high a state of perfection, with a bill of the expenses, we might compare it with Col. *Capron's* successful operations on the clays of Prince George's. Their systems must have been opposite, for *Thaer* was an entire believer in the green crops. It seems to lessen somewhat the value of theory, if a man so distinguished for his practical successes, should have been all the time theoretically in error. Yet he lays down the humus theory in all its breadth—"Humus is a constituent part of the soil. The fertility of land depends entirely on its presence; for if we except water, it is the substance alone in the soil to which plants owe their nutriment." And again, "Humus is the product of living matter, and the source of it—without it, nothing material could have life, neither vegetables nor animals."

Without pursuing further the discussion of these theories, it may be more profitable to enquire into their application to practical agriculture—of course their direct application is to the system of manures. We generally rely in this country on clover, peas, and other green crops, to keep up our land. We cannot cover extensive fields with animal manures. We cannot put 400 sheep to an acre of turnips. If these crops are really not fertilizers, if our land under their use is fast deteriorating, we ought to know it, even though there be no other resource on which we can fall,—for such is the conclusion from the mineral theory. *Petzholdt* sums up in these words—"It is evident how ill-founded is the idea, that certain plants improve the soil by enriching it. It is a fact beyond controversy, that all plants whatever withdraw mineral constituents from the soil and so far impoverish it. All such notions of improvement are mere illusions." "The fallow crops" (of these he specifies clover, peas, vetches, lucerne, buckwheat,) "leave the soil capable of producing grain-crops only, because the two classes take from the soil a different food," the one class being lime plants, the other silica plants. The opinion that such fallow crops "enrich and ameliorate the soil," he denounces as "the general error of practical agriculturists." He asserts that "the land after pure fallow is always more productive than after fallow-crops;" that the improvement which may follow such crops is due "to the fallow (from the formation of minerals in the soil by decomposition and chemical action) and in spite of the fallow-crops; that to incorporate buckwheat with the soil cannot enrich it, since by this operation can only be returned to the soil what the buckwheat had drawn from it." This is his general practical conclusion, and it follows legitimately from his theory; a little after, he admits a slight qualification. He says buckwheat and other fallow plants or clover, may by their long roots bring up from the sub-soil minerals, which by subsequent vegetable decay on the surface or in the upper soil, are put within the reach of the short-rooted grain plants. This effect however, he considers as "insignificant," and not materially modifying his doctrine of the usefulness of green crops to improve land.

It must be understood that when he speaks of clover, &c., as diminishing the fertility of land, he is considering the case where the crop is carried off. Where it is consumed or left to rot on the land, or turned in, there is nothing carried away. But even then, he considers the actual fertilizing effect as "insignificant."

Col. *Capron* will not go the length of this doctrine. Yet it shows that his experience which led him in certain circumstances to reject "A Learner's" "self-fertilizing" system, is confirmed and applied to all cases by the laborious investigations of learned teachers in that school of newly discovered science in which we are all learners.

In direct opposition to all this, is the practice of nations from the days of the Romans; the universal system of modern agriculture, and the concurring authority of all writers who have preceded these chemists. "Vegetable manures," says *Thaer*, "are "not so active and energetic as those of animal ori-"gin, but their effects are more durable. We be-"stow an active and abundant vegetable amendment "on the soil when we sow it with plants which will "flourish on it, and when they have begun to flower, "either bury them by the plow, or have them eaten "off or trodden in by cattle. The practice is of great "antiquity. In Italy the improvement of exhausted "land is found to be better accomplished by green "crops than by animal manures. It is there called "'a refreshing amendment.'" Professor *Johnston* too —"the ploughing in of green vegetables may be fol-"lowed as the method of improving *all* land. In no "other form can the same crops convey to the soil "the same amount of enriching matter. *There is no* "*limit* to the fertility that may be bestowed by the "successive ploughing in of green crops:"—of course he means where the land is not at the same time made to produce any grain. Both these valuable writers give many detailed rules for the practice of green manuring, the crops to be used, the time and mode of ploughing, &c.; by which, they maintain with "A Learner," that the poorest soil may be brought to a state of fertility.

Professor *Johnston*, however, while he asserts the immediate efficacy of this system, appears to have imbibed enough of the chemical theory to administer a caution to those who make green crops their sole and permanent reliance to improve and keep up their land. He says the land will finally in the course of the grain crops become exhausted of its mineral elements, the clover only restoring to it what minerals its roots bring up from below. This exhaustion may not ensue in the currency of a single lease, or during a single life-time; but the process though slow is constant, and we shall be forced at some time to apply mineral manures.

In one respect the Professor may be a safe guide. Though a professed chemist, he is always careful to compare his analysis with experience. He does not entirely confide in his chemistry. He will not carry out his theories to their logical extremes. He always modifies them by practical results. For example—he quotes *Boussingault* and other French authorities to the doctrine that "the relative efficacy of all manures depends on the proportion of nitrogen they contain." He cites from them a table of various substances, which rates 220 pounds of pea-straw, or 250 pounds of clover roots, as equal to 1000 pounds of farm-yard manure:—On which table he remarks that "it agrees with experience in showing that "green substances generally, ploughed in, enrich the "soil more than an equal weight of farm-yard ma-"nure."—Not however, to desert the mineral theory altogether, he distinguishes between the immediate and the lasting influence of manures, and concludes, as his final opinion, that "the immediate effect of manures will be according to their proportion of nitrogen—their permanent effect according to their carbon and inorganic elements."

Such, Mr. Editor, is the state of this controversy among those writers who profess to teach us the science of Agriculture. It shows opposite opinions on important questions in theory and practice. It leaves the discussion between Col. *Capron* and his friendly adversary exactly where we found it—producing authorities of equal weight on both sides.

We may be somewhat surprised to find that agricultural science has made so little progress towards its establishment on a firm basis and settled principles,—important practical questions still in dispute —fundamental principles of the science still unsettled. On one side, green manures relied on wholly for the improvement of land, and preferred to animal manures. On the other, the efficacy of green manures denied altogether. By one, clover pronounced rather exhausting than fertilizing—by the other, clover roots considered worth four times their weight of barn-yard manure.

In conclusion of a subject to which we are not likely to find a satisfactory determination, I refer to one or two opinions deduced from the chemical theory by Petzholdt, which are interesting, whether that theory be admitted or denied:

1. The decay of any plant makes a manure best suited to produce the same plant. The manure of *silica plants* best for silica plants, *lime plants* manure best for lime plants. So rotted wheat-straw is better than clover (which is a lime plant and contains but little silica) for a wheat field. Or if there be no occasion for litter in the soil, as by its mechanical action in loosening stiff clay, the straw may be burnt and the ashes employed with equal or greater advantage. Of course, by the other side, this burning is pronounced wasteful and exhausting—as a loss of valuable organic matter.

2. The nitrogen and carbon of dung may be disregarded in estimating its value, which depends on its phosphates and salts.

If this be true, it settles the long existing dispute as to the mode of applying manure, and shows that it makes no difference at all whether it be top-dressed or ploughed in. The volatile plants, being an insignificant portion of ammonia and useless carbonic acid, contribute nothing to its effect. The soluble salts are in either way secured to the soil. But we may infer that with light sandy land, it is best to apply it as top-dressing on turf; not from the common notion, that the leaves of clover catch the escaping ammonia, but to prevent the valuable minerals from sinking and being lost in consequence of their great solubility, and the porosity of the soil.

3. Marl mixed with land may mechanically improve it. Chemically it is of no value, except where the land requires lime; and then lime is better and much cheaper.

4. If *Petzholdt* is right about the action of clover, it matters not how heavily we pasture a clover field after the clover is matured. The inorganic matter is useless. The mineral is restored in the dung. But *Johnston* and *Thaer* admit pasturage only where the land is in good heart. From all of these authorities we may infer the advantage of dividing pasture fields, if pastured on during the growing state of the clover, so that, as the clover is eaten off, it may be done evenly and the manure be equally distributed—and then by removing the cattle the clover be allowed to recover its leaves, by means of which the whole plant grows—the leaves for pasturing and manuring again, the roots for decay in the soil.

This question, of the action of manures, is not one of theory, interesting only to the chemist and physi-

ologist, but it is of the highest importance to the practical farmer. For if it be true that organic matter, which the art of man cannot create, and which the soil will not always furnish, (for even clover wears out) is of no aid to the nutrition of plants, if it be true that the fertilizing influence of all animal and vegetable manure resides only in those mineral ingredients which may elsewhere be procured in nature or compounded by chemical art, it follows not only that the means of enriching soils is made more subject to our control, but that quite a new direction will be given to agricultural improvement. Laboratories and manufactories may supercede our domestic machinery of clover and peas and compost—heaps and farm-yards,—and chemistry may realize the vision and boast of Liebig—"when manufactories of ma-"nure will be established in which the farmer may "obtain the most efficacious manure for every vari-"ety of soil and climate—when instead of the pre-"sent empiricism, all the operations of agriculture "will be carried on with certainty, and instead of "waiting the results of our labor with anxiety and "doubt, our minds will be filled with patience and "confidence,"—all which he hopes will be the result of certain investigations in which he declares himself engaged. The same confidence in chemistry can hardly be expected of practical men, who may well doubt if the chemist will ever discover a substitute for clover. X.

BIRD-FOOT CLOVER—BUCKWHEAT, &c.

Bel Voir, A. A Co., Oct. 13, 1847.

To the Editor of the American Farmer.

DEAR SIR:—I am sorry your correspondent, "a Patuxent Planter" misunderstood a remark of mine in a recent No. in which the term "democracy" occurs. You do me but justice in your notice of his article. It was not intended as a "slur" upon a party. I would not under any circumstances attempt such a slur—much less in an agricultural journal having among its contributors "a Pautuxent Planter" and "a Learner." The latter who in his last does my name "overmuch honour" by the connection in which he places it, did not I trust so misapprehend me.

I have no disposition, however, to quarrel with your correspondent about a mere matter of words. I am too much indebted to him for his valuable services in the cause of agriculture. I am especially indebted to him now, for his correct appreciation of what I wrote you upon the subject of the "Bird's Foot Clover." He knows from experience and observation the value of the plant as an improver. He sees that the scope of what I wrote was, in the words of "a Learner," to show "how a bushel of wheat, a barrel of corn, or a cwt. of hay may be made, with less labour than we now require for their production, without exhausting the soil." His high authority will commend, I hope, the subject of that communication to the more favorable consideration of the Edi or'al chair.

I am glad, Mr. Editor, that he has elicited the name of the plant that stands at the head of *your* list of improvers. Buckwheat may be a very good plant for the purpose, but *my* experience does not testify to its superiority to the Bird foot clover. The amount of vegetable matter which you think it would yield in a season, (twenty-four tons) includes, of course, the *water* which would evaporate in drying, and leave of *real* vegetable matter, on the quantity of land of which I spoke, about two tons perhaps in two crops—an amount not so far exceeding the Bird foot clover as your figures would seem to indicate. But admitting the *quantity* of the latter to be much less, it is not for that reason inferior, any more than the red clover is inferior to Indian corn as an improver, because the latter yields a greater bulk of vegetable matter. The peculiar qualities of the plant determine its value as an improver. These qualities are to be determined by experience. Bring your proofs of the value of buckwheat as shown by this test, and I am prepared with mine for the other.

Admitting for the present the superiority of the buckwheat to the Bird foot clover, the latter is not therefore to be rejected. A dressing of lime might be preferred to the buckwheat, and a dressing of guano to either. But the cost! ay, there's the rub. To plough your ground, buy the seed, and harrow it in, would cost some $3,50 per acre, equal on a field of fifty acres to $175. Many a farmer who could not lay out so much money in the improvement of his corn field, might be glad of, and profit by a less degree of improvement that does not cost him a copper. But if, as I maintain, the Bird foot clover is equal in value to the other, then in the improvement of a field of that size, I save by a knowledge of the fact just one hundred and seventy-five dollars.

While on this subject of improvers permit me to call attention to another plant of very great value for such soils as I am speaking of, I mean the black-eyed pea. The cost of using this would be just that of the buckwheat, and in my opinion it is much more valuable. I would submit too, whether it might not with great propriety be substituted for the small grains on such soils (light thin soils). It is worth a trial whether sown broadcast they would not yield a crop that would pay better than wheat or rye, with less injury to the soil. For this purpose it would come very well into a rotation with the Bird foot clover. The proper time for sowing being just when the clover which springs after a crop of corn, comes to perfection and ought to be turned under. As an improver it should be sown at the same time, and may be turned under in good time for a crop of wheat or rye.

"A Patuxent Planter" suggests that the Bird foot clover is of no value except as a fertilizer, and says in confirmation that his cattle left the hay for wheat-straw. I am not prepared to assent that it is worth anything for food, but I think his argument is not conclusive against it. Some years ago, in the stables of Mr. Beltzhoover, near Baltimore, I saw a fine cow turn from her crib of best Timothy to feed upon the oat straw that was thrown under her for litter. The cow's master did not surrender his opinion as to the value of timothy hay, but reproved her for her bad judgment in the premises. She persisted, however, and that not on the ground that "variety is the spice of life," but upon the more enlightened philosophy of the present day, that being full of the essence the timothy would yield, she lacked only that which could be supplied by the oat-straw. The cow taught a good lesson I thought, not upon the relative value of timothy hay and oat straw, but on the *economy of feeding*.

Very respectfully,
N. B. WORTHINGTON.

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We must have been sadly unhappy in expressing ourself, or our respected correspondent, Mr. Worthington, has been equally unhappy in comprehending our meaning. We did not intend to reject

"Bird's Foot Clover" as an improver of the soil, but indicated our disbelief in the possibility of procuring seed at any of the seed stores of this country. As a fertilizer of thin sandy soils, we have long been acquainted with the virtues of this plant. We have seen it grow on such soils; we have read the *estimate* of its value in the admirable essays of *Arrator*, (Col. Tayloe, of Caroline, Va.,) and in many European authorities, and have not the slightest doubt of its efficacy as a meliorator of the soil. But as we doubted the practicability of obtaining seed, we so expressed ourself, without intending in the least to deprecate the high opinion which Mr. W. had formed of its excellence. Notwithstanding the *figures* which he has displayed, showing the expense of turning down a green crop of buckwheat, we are disposed to question whether one of "Bird's Foot Clover" would not cost fully as much, with this difference in favor of the former, that its seed *can* be obtained in every neighborhood, whereas one might as well look for a needle in a hay-stack with the expectation of finding it, as to expect to purchase seed of the latter anywhere this side of Europe—and we would add—that the preparation of the ground would cost as much for the one as for the other, to say nothing of the superior cheapness of buckwheat seed over that of "Bird's Foot Clover."

Our correspondent must excuse us for the liberty we have taken of omitting a portion of his remarks—their publication, we fear, might lead to an unprofitable discussion, which it is desirable to avoid.

LARGE YIELDS.

To the Editor of the American Farmer.

* * * * * As I have my pen in hand I will make my sheet fuller, by mentioning some farming matters which may not be uninteresting:

In my August number of the Farmer, I saw a paragraph headed "Large Yield of Wheat"—this reminded me of several large yields of the Hardware variety of Wheat; the first occurred to my own observation. In 1845 I pulled from a lot of my father's a bunch of Hardware wheat the product of one grain, which had 37 heads, from which I obtained 2,812 grains, being an average of 76 grains to the head; this bunch of wheat was grown on a lot of newly cleared land, which had never been cultivated but once, when corn was grown on it, the soil stiff white oak clay, and on the spot from which the bunch alluded to was taken, and for from 6 to 8 inches in circumference about it, there was not apparently any trace of vegetable matter in the soil; many heads of wheat taken from the same lot contained 128 grains. I was informed a day or two ago on undoubted authority, that a gentleman in Caroline County reaped this year, 9 bushels from a peck seeded, and he describes it as the prettiest wheat he ever saw. The land on which this wheat was grown, was very light sandy, top-dressed with coarse barn-yard litter.

In 1846 another farmer of the same county, from a gallon of seed reaped at the rate of 44 bushels for one seeded.

I have seeded for two years a small quantity each year, but have failed in making a good crop either as to quantity or quality; both years it has been injured by the rust, which I attribute to too late seeding. One word with regard to the effect of marl and lime as exhibited by my corn crop this year. The soil on which this crop is growing is very stiff white clay, somewhat on the bluish order. A section or "cut," as we call the different divisions of our fields, which I considered as poor as the poorest of my field, I manured this spring heavily in the hill.—In breaking up this part of my field (as in fact all of my field) to prepare it for corn, I ploughed as deeply as I could, and in one part turned up lime, and in another marl. The growth of grass on the whole of this cut of last year, was the same, it being poverty grass, which characterizes the soil on which it grows by its name. The traces of lime are discoverable in the soil occupied by about 20 rows of corn, the marl in about 40. These 20 rows where the lime is discernable, are infinitely better than the corn adjoining, which was as heavily manured as the limed part; the 40 rows where the marl is seen are much better than the adjoining corn not marled, but not so good as that limed. I manured the whole cut in precisely the same manner, and with the same kind of manure, viz: in the hill, with cow-pen compost, except 4 rows which were heavily top-dressed with ashes; part of these 4 rows run into the marled part and have fired a little.

This lime and marl, I am informed by a neighbor, was applied more than 6 years ago. It seems to me neither of them have lost any of their efficacious principles.

Accept, if you please, my best wishes for your individual welfare, and the continued success and increased popularity of the farmer's guide and benefactor, the *American Farmer*.

Most respectfully yours, J. B. S., Jr.

Talbot County, Md. Oct. 20, 1847.

SCAB IN SHEEP.—A correspondent asks us to inform him what treatment he must adopt to remove the disease called "scab," which affects a number of his sheep. First, separate the well ones from those that have the disease, that it may extend no farther. Then wash the surface affected by the scab with a decoction made by boiling a pound of plug tobacco, in three gallons of water. Care should be taken not to apply too much of this poisonous infusion, for we have seen bad effects from its absorption through the skin of persons, when applied for medicinal purposes.

The pustules or sores on the bodies of sheep contain animalculæ called *acari*, which some suppose to be the exclusive cause of the disease called scab.—Whether this be true or not, a solution of corrosive sublimate at the rate of a drachm of the salt to a quart of rain water, can be used to advantage to kill thet parasite, and heal the sores. Blue mercurial ointment is also a good remedy. For further particulars see MORRELL'S "Sheep Husbandry"—a cheap and most valuable work, which every man that keeps a score of sheep will make money to purchase at a dollar.—*Genesee Far.*

A letter from a distinguished gentleman of Virginia, to the Editor of the American Farmer, says:

"I believe I have been instrumental in sending you five or six subscribers in the last six months, and it gives me pleasure to know that your paper deserves all the patronage which the public bestows upon it. I hope I shall be able to induce others to give it support."

THE BLACK WEEVIL.

To the Editor of the American Farmer.

NEW WINDSOR, *Carroll Co., Md.*, *Oct. 20th*, 1847.

DEAR SIR:—In the last No. of the Farmer, I noticed on page 125, an inquiry from A Young Farmer, for a remedy for the destruction or extirpation of the black Weevil from barns, &c.

A remedy, such as he wishes, is of such magnitude and so generally desired, that I have frequently for the last few years upbraided myself, for not communicating publicly through your valuable paper, my own experience of, (as I believe) a certain remedy. I have always felt, as a practical farmer, that information of public importance to our profession, did not, in accordance to the fellowship of our calling, belong to the individual with whom it originates, though in this instance, as perhaps, in others, I have not thus acted.

My remedy is to wash, or wet the walls of the building infested by Weevil, with *strong brine*. Some ten or fifteen years since, I saw directions for keeping them off, by taking barrels that had been used for keeping salt in, in which grain might be kept safely from them. My barn and granaries at that time was, and had been for a number of years, greatly infested with black weevil, and I had (as the "*Young Farmer*") tried many remedies confidently recommended, without success. Being then rather faithless in all remedies, I took but a single salt barrel, washed it out and aired it in the sun, and in the month of August, in or about 1835, put into it 2 bushels of wheat, in which there had been no weevil, and set the barrel with its contents into a garner containing some 50 or 60 bushels of wheat; upon stirring which, the weevil would crawl out and ascend the walls until they were black with them—so numerous were they.—I was careful, almost daily, for weeks, to examine the barrel with its contents, sitting in the midst of the heap of wheat, and never found a single weevil on it, or in it. The remedy, thus far, seemed satisfactory. About the 1st of May ensuing, I had my barn and garners cleared of all hay, straw, and grain, and gave the walls and floors a thorough washing, or wetting, with strong brine, which I had collected from fish barrels, the pickle from my meat, and also by adding clean salt to make the necessary quantity. From that season to the present time, my barn has been annually filled with grain, but the "war of extermination" had been so thorough, that not a single one has been seen therein, since the application of the *brine*.

Aware of the incredulity in remedies for "great evils," induced me to give the *particulars* above, that the *Young Farmer* and others may see the cause I have to believe the remedy perfect.

Yours, with much respect,

JAS. C. ATLEE.

PEAS.

APPLEBY, NEAR CAMBRIDGE, MD., *October* 17, 1847.

To the Editor of the American Farmer.

SIR:—I send you, as fair specimens, the tap roots of three kinds of "Peas," called "cornfield peas" in the South, where they (two of them) have been many years in use. The seeds were kindly sent me, last year, by Rich'd Adams, Esq., of Nansemond Co., Va. as great improvers of the soil. I have attached labels to their respective roots—the one called the "Black or Tory Pea," another, "the Kelly," a yellow pea,—and the third is called the "Rocky mountain pea,"—which Mr. A. says, was sent there by Capt. Fremont, while travelling in that country,—of this last, lately received, Mr. A. has no experience, but from the immensity of the root (for a pea) which I dug up this morning, I am induced to send it to you. It must be invaluable as an improver; it measured, when recently obtained, two inches in circumference, and not conical as usual in tap roots, but retaining this size for six inches in the ground—and near the lower end it sends out many lateral branch roots, ten to twenty inches long, thus pervading a space of twenty to forty inches, diameter; the main stem above ground, runs up to about three feet, with numerous alternate branches, loaded with large ovate leaves, six inches long by five broad; the pericarps, or seed vessels, grow in clusters, at the extremity of each stem, and contain a very small grey colored seed.

The Black Pea has, also, a large tap root, and many fibrous branches, and its foliage is heavy. The root of the "Kelly Pea" is much smaller, but its foliage is nearly equal to that of the Black; Mr. A. highly recommends this pea for table use—green or dried; and my experience this season, fully verifies this character of it.

I have taken the liberty to introduce, without his knowledge, Mr. A's. name, and a few of the many interesting subjects of his several letters to me on agricultural matters and things—relying upon his liberality, to pardon the liberty. I had previously received a communication from him, stating his impressions, as adversary to that maintained in my address at Wilmington, on the necessity of a rotation of crops; and that he would collect reliable testimony, that corn had been grown very many consecutive years—and the land and crops improving—without manure.

He names a field of his own, of twenty acres, in the constant cultivation of corn (with the exception of one year in cotton—one year in Palma Christi—and one crop of water melons) "beyond the memory of the oldest people"—and without any manure—save some applied to the water melon crop; yet now, yielding a crop of corn which promises to yield forty bushels to the acre. Also Gen. Cressup, a neighbor—a field thirty-seven years, in corn—yield thirty to forty bushels per acre—no manure applied to it—now yields forty to fifty per acre. Another neighbor has cultivated the same field for more than twenty years successively, in corn and cornfield peas, and from an original yield of five to eight bushels of corn per acre, it now yields thirty to forty: But the most striking example is in that of Mr. Hopkins, of Charles city county, who cultivated the same field, for more than thirty years, consecutively, in corn; (he also planted the cornfield pea with his corn, as I infer the others all did) he improved his land so as to make it yield more than five fold.

Mr. A. writes that the usual course is to sow the pea broadcast when the corn receives the last working—say about a half bushel per acre: and when the corn is gathered they may be pastured, or ploughed in, for the benefit of the land and the corn crop of the ensuing year: but, if intended for the grain, they should be planted in drill, from the 1st of June to the 10th of July. These peas are, he says, considered in the South—in lower Va.—the two Carolinas, and in Georgia, where they have been a long time used, as valuable in light land, as clover in the stiff—as food, or, as an improver.

I have hastily sketched off a notice of these surprising facts, from their reliable and undoubted authority—in direct concurrence, too, with Mr. Garnett's views on the same subject, which I have referred to on a former occasion. Respectfully,

JOSEPH E. MUSE.

IMPROVEMENT OF LANDS.

To the Editor of the American Farmer.

SIR:—You have so many valuable correspondents, that I prefer being a learner instead of a contributor, or I would forward some of my *notions*, founded on experience. The communications of Col. Capron, and a Learner, are very valuable, not that they contain anything positively new—but they will make farmers reflect, and consequently use all the means within their reach—this is unfortunately not the case at present—for the loss and waste of manure, or the materials for making it, on a large majority of the farms in the State, is immense!—Though they differ so widely, they are both right—paradoxical as the assertion may appear. The Colonel is right where circumstances will permit—as in his case—but the Learner is right in a very large majority of cases—for in the language of one of your correspondents—"the true system is to make the land improve itself—but wherever circumstances will permit, the auxiliary aid of "purchased manures" is to be resorted to. B. J. S.

We hope our esteemed friend and correspondent will contribute his aid to our columns—his "*notions*," we know, will be acceptable to our readers, as in addition to the science of Agriculture, his experience combines the practical duties therewith, and we are confident his views on the important subject now being canvassed in our paper, will be found eminently useful in more extensively directing the farming community of our own and neighboring States, to the importance of the subject.

THE GUINEA OR AFRICAN GOOSE—THE RUSSIAN GOOSE—THE SIBERIAN GOOSE—THE MUSCOVY GOOSE.

Bement, in his admirable work, "*The American Poulterer's Guide*," thus describes the largest of the goose tribe, which is known in various countries under the above names:

He says, "the Guinea or African goose, is the largest of the goose tribe that has fallen under his notice; it is of the size of the swan, and it often weighs more than twenty-five pounds. We have now in our possession one pair which we purchased for a gentleman in South Carolina, which will weigh, in common ordinary condition, over twenty pounds each. We once owned a gander that weighed twenty-four pounds. They are a noble bird, quite ornamental about the premises, and add much to the scenery, particulary if a sheet of water be near.

Buffon describes it thus:

"The appellation of Swan goose, given by Willoughby to this large and beautiful bird is very apt; but the Canada goose, which is at least as beautiful, has an equal right to the name; and besides, all compounded epithets ought to be banished from natural history. The Guinea goose exceeds all other geese in stature; its plumage is a brown-grey on the back, and light-grey on the foreside of the body, the whole equally clouded with rusty grey, and with a brown cast on the head and above the neck; it resembles, therefore, the wild goose in its colors; but its magnitude and the prominent *tubercle* at the root of its bill, mark a small affinity to the swan; yet it differs from both by its inflated throat, which hangs down like a pouch or little dewlap."

Brisson describes it as having *black* legs, and represents the *tubercle* on the head as also being *black*.

We owned a gander of this breed in 1839, his weight was 24 lbs., but his color of feather was altogether different to the description given by Buffon. With the exception of the points of three of the quill feathers in each wing, he was *snow white*, and instead of the *tubercle* being *black*, it was of beautiful vermillion color, and his legs were of a very similar hue. It is but doing our gander justice, to say that whether viewed in the water disporting at the head of his lady loves, or marching in their front on land, he was the most majestic and beautiful bird we ever beheld, but we cannot say much in favor of his disposition, as towards children he was perfectly ferocious, and seemed to take particular pleasure in making them feel that they dare not poach upon his manor. His deportment was like that of some people towards their neighbors; the weakness and inability of children to defend themselves, appeared to us to provoke his vengeance.

MONTGOMERY COUNTY CATTLE SHOW AND FAIR.

To the Editor of the American Farmer.

Allow me to express through your columns, the high sense of gratification experienced in witnessing the great variety of Stock, Agricultural Implements, &c., exhibited at the recent Fair held at Rockville, in this county, and the great improvements made in those implements, which tend so much to aid the agriculturist in his pursuit, vastly more than by our old and former mode of cultivation.

The place of holding the Fair, although somewhat remote from our large cities, was well attended.—The display of implements was very extensive, much more so than is usually exhibited at Fairs held in this State.

Mr. Coyle, of Washington, had a good selection.

Mr. E. Whitman, jr., of Baltimore, had a greater variety of improved implements than I have ever known to be exhibited by any one house at our Fairs in Maryland, and for which I noticed he received the Society's highest premium, *a Gold Medal* and $20 in money—several other premiums were awarded Mr. Whitman on different implements, among them I noticed "Grant's celebrated Wheat Fan," which cleaned the grain beautifully at one operation. His "double Corn Sheller" performed admirably, and also received the first premium.—Whitman's *wrought iron* Rail-way Horse-power and Thrashing Machine in its work, was admired by all, and I doubt not but it will become generally adopted by our farmers here, as it now is in other States—this seems to be an implement, both for convenience and capacity that suits the wants of the farmer.

The *trial* of the celebrated *Prouty & Mears' plough*, No 55, left hand, seemed to take the palm over any other; this is truly a desirable implement; some of its qualities are well explained by a writer in the October number of the "*Farmers' Cabinet*," page 74,

viz: "The labor of this plough, compared with many others, is like the labor of rolling over an even log, compared with that of rolling over a square stick of timber." "The draught is called "Centre-Draught," and both sides of the plough are carried along together, and with perfect ease. We were much gratified with the sight of so perfect a plough; it will be a treasure to all who think it important to plough well, by far the most important operation in farming. Its depth and width of furrow is easily controlled at the will of the operation." This plough as usual received the highest premium as the best two horse plough. In conclusion, we wish Mr. Whitman the best of success in so laudable a pursuit as that in which he is engaged, in introducing his new, useful and improved implements, so well calculated to aid the farmer both in the preparation and cultivation of the soil.

Yours, R.

October 20th, 1847.

PRINCE GEORGE'S CO. AGRICULTURAL SOCIETY.

We were in hopes to have been enabled to have given in this month's number, the proceedings had at the Fair of this efficient association held at Upper Marlboro' on the 14th and 15th ultimo, but received them at so late a period that we have been reluctantly compelled to postpone their publication until our next, when we will also give the admirable address delivered upon the occasion by *Thos. F. Bowie, Esq.*, an address which is replete with classical research, profound in thought, apposite in its reasoning, and not less distinguished for its vindication of Agricultural interests, and for its decorous scathing of those who, during the past season, have speculated on the honest products of the farmer's industry, and rendered *famine* itself subsidiary to the cravings of cupidity.

As we have not time at the present moment to encounter the labor of an elaborate account, we shall adopt the following, which we copy from the Washington News:

The Prince George's County Agricultural Fair, held at Upper Marlboro, on Thursday and Friday last, was quite numerously attended. Mr. Calvert had there a handsome tent, surmounted with the national flag and appropriately decorated with a beautiful festoon of evergreens. In the tent were two rows of splendid cattle, with their names and pedigrees, in printed labels, attached to each stall. There were forty one beautiful animals in all, of the Durham, Alderney and Holstein breed—They supply the Washington market with the Riversdale milk.

One object which atttacted particular attention in the part of the inclosure assigned to Mr. Calvert, was a wooden building or caravan on wheels, 20 feet long and 8 feet wide, divided into three rooms, the centre division being furnished with a cooking stove and utensils; the other two being fitted up with sleeping bunks, in the manner of a steam boat, for ten servants, whom Mr. Calvert brought with him to the fair, to feed and superintend the beautiful animals that he exhibited. It was a curious sight to see this wooden house, drawn by oxen, on the way from Baldensburg to Marlboro', the cooking operations going on, as the large vehicle moved towards the place of exhibition.

Next to Mr. Calvert's fine animals, in interest to the spectators, was the admirable collection of Horace Capron, Esq., of the Laurel Factory. This collection was placed under a long temporary shed erected on the right of the entrance to the enclosure. Mr. Capron's collection consisted of Southdown sheep, a pair of oxen, of the New York breed, a fine Durham cow, a red bull, two small Durham bulls, a Durham heifer, a Devon bull, and four or five valuable cows and heifers.

Thomas Blagden, Esq. exhibited a pair of oxen of the Devon breed lately purchased by him for one hundred and fifty dollars at the Saratoga Fair.

A splendid dinner was given, at which not less than 150 invited guests and others were present.

Among the company were the Hon. D. Jenifer, Gen. Chapman, John S. Skinner, Esq., Editor of the Farmer's Library, Col. Capron, C. B. Calvert, Esq., T. Duckett, Esq., T. F. Bowie, Esq., W. W. W. Bowie, Esq., Mr. Horsey of Baltimore, Dr. Owens of Anne Arundel county, and many other influential gentlemen of Maryland. Among the speakers were, W. W. W. Bowie, Esq., the Hon. Mr. Jenifer, T. Duckett, Esq., General Chapman, Col. Charles Carroll of Baltimore, Col. Capron, Dr. Owens, Mr. Dorsey of Baltimore, J. C. Mulliken, R. Bowie, Esquire, Ex-President of the Prince George's Agricultural Society, H. C. Scott, and Oden Bowie, Esquires.—In the course of the evening, a merited compliment was paid to Dr. J. Bayne, as a distinguished horticulturist.

The Marlboro' Gazette, speaking of the Fair, says:

For the best regulated Farms, Col. W. W. W. Bowie has carried off in triumph the highest prize. The committee shew great judgment in awarding Colonel Bowie the highest honors; as no man in the county deserves more praise for his labors in behalf of Agricultural Improvement. The Col. has been elected President of the Society—a position he will no doubt fill with credit and usefulness. The other competitors for farm premiums are deserving all the praise bestowed upon them by the committee.

Fine Horses, Cattle, Sheep and Hogs were exhibited by Messrs. Thomas Blagden, of Washington, Clement Hill, Wm. N. Dorsett, Thomas Duckett, Wm. D. Bowie, Walter W. W. Bowie, George W. Hilleary, Wm. B. Hill, Robert Bowie, Richard S. Hill, James Mulliken, Charles C. Hill, Wm. F. Berry and Richard C. Bowie, who severally received premiums from the society.

The slaughtered Mutton exhibited by Col. Duckett and Col. W. W. W. Bowie, of Queen Anne, fully maintained the well earned reputation of that famous district Col. D.'s Mutton weighed 114 lbs. nett, and 123 lbs. with the caul. Col. B's. we believe, was not weighed; but had it been, we are sure it would not have been "found wanting."

Col. Duckett's lot of Vegetables excelled any thing of the kind ever exhibited. That well-informed gentleman, J. S. Skinner, Esq., remarked that the combined markets of Baltimore, Philadelpha and New York could not produce a greater variety, or a more superior collection. Col Bowie here, too, was Mr. D's. competitor. His vegetables were much admired; and of their quality *we* can speak from experience, having been presented with the lot. His Irish Potatoes, the "Bowie Seedling," were excellent.

In the Court House, the ladies exhibited a variety of useful and beautiful articles, wrought by their fair hands. We cannot venture to single out particular articles, as being highly meritorious, where *all*

displayed such taste. The ladies themselves were present in great numbers.

The Committee appointed to examine Farms, &c., awarded the first premium to Col. W. W. W. Bowie, as stated above; the second to Robert Bowie, Esq., and the third to Col. John D. Bowling. The Committee make favorable mention of the farms of James Somerville and Charles C. Hill, Esqs.

Messrs. R. Sinclair, Jr. & Co. of this city, had a fine collection of Agricultural Implements on the ground, for which they received premiums, which will be noticed particularly hereafter.

We understand that other manufacturers intended being present, but in consequence of the freshet, they were prevented from getting there in time—but will be at their posts in Easton, at the Talbot County Exhibition.

CHARLES COUNTY, MD. AGRICULTURAL MEETING.

We hope the earnest appeal contained in the following paragraph from the Port Tobacco Times, will not be lost upon the public spirited farmers and planters of Charles county.—There is an evident spirit of improvement abroad in that county, as well as others, and every effort should be made to encourage and increase it— for the evidences we have in various counties, clearly prove, that every one is more or less interested in the improvement of the lands of our State, and that one successful trial begets additional efforts—and as an improvement is effected by one farmer, it stimulates another to follow his laudable example, until the whole county will catch the contagion, and a revolution effected, the benefits of which cannot be estimated upon the well being not only of the present proprietors, but upon their descendants. We earnestly appeal to our numerous friends and readers in old Charles, that they will not be backward in coming up to the work, and that they will give a generous aid to the gentlemen appointed to carry out the views of those who have set the ball in motion. The character of the committee is such that they may be relied upon as doing their duty—let there be no faltering on the part of others, who are as deeply interested in the successful prosecution of the work as they can be.

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Our Agricultural meeting on Tuesday last was not as well attended as we had anticipated. This is owing doubtless to the fact that our farmers are pretty generally at this time busily occupied in seeding wheat. It may also in a great measure, be attributable to sickness, as there is not a family perhaps, at least in less favored sections of our county, that has not suffered more or less from the diseases of our climate. The meeting determined, however, to adjourn over till the Second Tuesday in November next, when it is hoped every individual who has any interest in the pursuit of agriculture, will not only feel it his duty to attend, but to induce his neighbour to come along with him. In union there is strength; and without the co-operation of a goodly number, this truly laudable undertaking must be suffered to perish. Let county pride—let personal interest,—the interest of the county at large, and the interest of posterity, urge you to come forward with an energetic zeal, and show to our neighbors, as we are fully capable of doing, that we are determined not to remain behind them in skill, management, and the improvements necessary to successful farming.—*Times.*

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In pursuance of previous notice, calling upon the citizens of Charles County to assemble, for the purpose of forming an Agricultural Society for the county, a number of gentlemen friendly to the object met. Judge J. HAWKINS was called to the Chair, and E. Wells, Jr. appointed Secretary.

The meeting was addressed by Gen. Chapman, Walter Mitchell, Esq. and Col. Jenifer, who severally advocated, and pledged their exertions in behalf of, an Agricultural Society for the county.

On motion the Chair was authorized to appoint a Committee of five to draft a Constitution, to be submitted at a future meeting, for the organization and government of the Society to be formed. The Chair appointed the following named gentlemen:

Gen. John G. Chapman,
Walter Mitchell, Esq.,
Richard Barnes, Esq.,
Col. Francis Thompson,
Col. Francis C. Green.

On motion, it was resolved, that when the meeting adjourns, it stand adjourned until the Second Tuesday of November next.

It was then resolved, that the Secretary of the meeting be requested to give due notice to the public of said meeting, and request a general attendance on that occasion.

The meeting adjourned.

JOSIAS HAWKINS, Ch'n.

E. Wells, Jr. Sec'y.

Cure of the Fistula in the Withers of Horses.

Springfield Furnace, Aug. 25, 1847.

Sir:—The following receipt I applied to a horse of mine three or four years ago, and it cured him sound in two weeks. I have given it to others since, and in every case it has been successful in curing their horses so effectually that the disease has never come back again, which is the case with it when but partially cured. The same preparation will, I believe, cure the Poll-Evil also, as this disease is very much the same, although I have not had an opportunity of trying it since I discovered it. If you think proper you may publish the receipt in your Journal. My opinion is that anything that is calculated to ameliorate the condition of man or beast ought to be made known to the public.

Respectfully, &c. Johnston Moore.

Take half pint of spirits of Turpentine,
half ounce of spanish flies,
half ounce of Camphor,
half ounce of Salammoniac;

Pulverize the three last, and put the whole in a bottle, and hang it up in the sun two or three days before using; then rub the part affected every other day—three times rubbing will be sufficient to effect a cure. Tie your horse up so that he cannot rub or roll until it ceases to pain him.

Isinglass and gin, dissolved together by slow heat, make a good cement for glass.

THE AMERICAN FARMER.

☞ OFFICE REMOVED

To *No. 2 Jarvis Building*, NORTH STREET, *near Baltimore-st —2d door round the corner from the late location.*

☞ AN APPEAL.—We would most earnestly appeal to those of our subscribers who may know themselves to be indebted for the "*American Farmer*," to forward the amount of their dues forthwith. We have to meet heavy demands upon us during the present and coming months, and though the sum due by each subscriber is but a trifle, in the aggregate it amounts to a very heavy sum, which will be peculiarly acceptable at the present moment. We feel a conscientiousness that we give a valuable consideration for all we receive, and we trust that all who have a kindly feeling towards us, will do us the justice to respond promptly to our request.

Our city friends, who may not have already paid us, will be called on in a few days.

We are promised by Col. Capron, a portrait of his fine bull, so highly spoken of by our correspondent "*Patuxent Planter*," in the last No. of the AMERICAN FARMER. We shall probably have an engraving of it prepared for our next No. The Col. has thus set an example, at the suggestion of our correspondent, which we trust will be followed by others. We hope that from the herd of Mr. Patterson's Devons, Mr. Calvert's Durhams, Mr. M'Henry's Ayrshires, and the flocks of Messrs. Wm. D. and W. W. W. Bowie, Mr. Ducket, and others, we may be furnished with portraits of superior animals, with which to grace our columns, from time to time.

TALBOT CO. FAIR.—It will be seen by the following official notice that the Cattle Show and Fair of the Agricultural Associations for the Eastern Shore has been postponed to the 10th and 11th of this month (Nov.) The exhibition will take place at Easton. We have reason to expect that our implement makers, and others, connected with agriculture, will be in attendance, and a spirited competition will be had for the honors of the Society. We hope our friends of Talbot will put their best foot foremost on the occasion, as there'll be "*a chield amang you taking notes, and faith, he'll prent them.*"

The wet weather having retarded wheat seeding to a later period than was anticipated, the Talbot County Cattle Show and Fair, is hereby postponed until WEDNESDAY and THURSDAY, the 10th and 11th of NOVEMBER inst.

M. T. GOLDSBOROUGH,
S. M. JENKINS,
Com. Md. Ag. Soc. for E. Shore.

JOHN W. MARTIN,
MARTIN GOLDSBOROUGH,
Com. Far. Insp. Assoc. for T. Co.

The following remarks of the Marlboro' Gazette, are very appropriate, and we adopt them as our own:

It would be well for the Agricultural community, if farmers and planters were as willing to meet each other and interchange acquaintance and information, in regard to their own *proper and vital concerns*, as they are to rush into political associations. By going thus abroad, occasionally, observant men never fail to pick up useful knowledge, while they extend, agreeably, the circle of their Agricultural and social acquaintance and enjoyment. The Maryland Agriculturist has become famous throughout the Union, for hospitality and knowledge of his vocation. At a recent meeting of the Delaware Agricultural Society, a Maryland Farmer not only took the premium for fat cattle, but the farmers, as a class, were thus noticed in a toast:

"*Maryland Farmers:*—May their lands be made as warm and generous as their hearts—their fields teem with an abundance equal to their hospitable boards."

SINCLAIR & CO'S. DOMESTIC MILL.

When agricultural machinery possessing superior excellence is offered for our notice, we consider it a duty we owe our subscribers and the public to recommend them. The domestic Mill described in this No. by Messrs. Sinclair & Co., we believe is admirably calculated for plantation use, and a valuable acquisition to the agricultural interest. One of these mills is in use at our Penitentiary for grinding corn, wheat, rye, &c., for the entire use of that institution; we have carefully noted its performance, and have no hesitation in saying that the remarks made by those gentlemen in regard to the quantity the mill will grind per hour, novel mode of construction, &c., are substantially correct.

It may also be in place to notice that at the Prince George's Agricultural Fair, held at Upper Marlboro' last month, the committee on machinery, after examining the mill, awarded an *especial premium* for it—which was given in lieu of the previous award.

This mill, with many valuable implements of husbandry, will be exhibited at the Talbot Co. Fair, and we particularly ask the attention of our friends on the Eastern Shore to its operation.

ARTIFICIAL GUANO.

The following quantities will be sufficient for an acre of land:

10 Cart-loads of rich mould,
30 gallons of stale urine, (human)
20 bush. of pulverized Charcoal, or 1 bushel Plaster,
8 bushels of Ashes,
5 bushels of Bone dust,
1 bushel common salt.

Mix the whole thoroughly together, and let it lay in a pie two weeks before being used, when it may be spread on the land and ploughed in, and will be found on trial a most efficient and prompt manure, answering equally well for grain crops as for grasses, and will ensure profitable yields throughout an entire course of rotation. Than the above mixture, a better top-dressing could not be provided for meadows. When applied to the latter it should be harrowed in and rolled. The best period for this latter operation, would be in early spring, so soon as the frost is completely out of the ground.

DR. DARLINGTON'S ADDRESS.

We took up the Address of Dr. Darlington with the intention of making some extracts from it, but after reading it attentively, we came to the conclusion that we could not, without doing violence to our own sense of its great merits, give less than the *whole*, and we are sure that we shall be sustained in our judgment by every reader of taste. Its *theme* is the education—the proper education of husbandmen—a subject the most important of all others to the well-being of our country, for as they comprise seven-tenths, or more, of our entire population—as upon the success of their labors the prosperity of all other classes depend—it is peculiarly proper that the ways of intelligence and knowledge should be opened to their acquisition. Like every production we have read from the pen of Dr. Darlington, the present one is learned without affecting to be so—it is full of knowledge—of that knowledge which is promotive of the good of man—of that knowledge which seeks to enlighten without assuming the character of the teacher—it desires to excite the mind to intellectual effort by the force and power of example, by the lever of moral suasion, rather than by stimulating its energies into action by that power of austere force too frequently adopted by the mere schoolman. Imbued, as Dr. Darlington is, with all the learning of the schools, it is the more refreshing to see a mind like his, rich alike in the philosophy of the closet and the vigor of nature, laying aside the mere dogmas of the books, and coming up to his work with the aims and objects of a philanthropic farmer, to make the paths of science and art pleasant in the sight of those who earn their bread in the sweat of their faces; to allure them to those studies which are calculated to elevate them in the social scale, to expand their intellects, dignify their calling, and prepare them to become at once the patriot conservators of our free institutions and instructed tillers of the soil.

"*The Dutchman*"—the veritable "*Dutchman*," we presume, has come in as a mediator between our respected correspondents, "*A Learner*" and "*Col. Capron*," both of whom he concludes are right in their respective theories, the latter's system of improvement, under circumstances, being applicable to the full-handed and full-pursed farmer, while the former's suit the great majority of land owners, who have to rely upon the soil for the support of themselves and families. "The Dutchman" gives *his own plan* of renovating worn-out lands, which is good as far as it goes, and as he has furnished an *example* in himself, we trust that "*A Learner*" will respond to the call which he makes upon him for *his* plan of *self-improvement*. The collision of minds between "*A Learner*" and *Col. Capron* has been productive of the best effects. It has set *farmers* and *planters* to thinking, which, of itself, will produce results of incalculable value to the country, as, after all, it is the agricultural mind upon which the nation must repose for its ultimate power, greatness and glory. No controversy, involving simply the pursuits of peace, have ever within our recollection elicited so much interest, and awakened so much profound consideration, as have the one between these two excellent writers, nor has this interest been confined to any particular section of country, but has extended from the sea-shore of the north to the gulph-shore of the south, extending backwards and forwards, embracing every region of our country in its range, raising up partizans for the one here, and friends for the other there, while, as in the case of "*The Dutchman*," there are others who think that both are right, and that the adoption of their respective plans of improvement is to be determined by the location of the lands, facilities of access to markets, mediums of transportation, and the pecuniary circumstances of the parties.

AMERICAN AGRICULTURE—RUSSIA.

We had the pleasure, some time since, of presenting to BRANTZ MAYER, ESQ. of this city, among other essays on agriculture, a paper on the cultivation of Tobacco, for the purpose of forwarding to a Society in St. Petersburg, of which he is a member. The following letter announcing their reception, we with great pleasure lay before our readers. If any of our friends can furnish a copy of the paper of Judge Beatty, they will please to forward it to us, for Mr. Mayer, who is anxious to comply with the request of his correspondent.

By the bye, our friend Col. W. W. W. BOWIE, who has recently been placed at the head of that excellent association, the Prince George's Agricultural Society, some time since prepared a treatise on the cultivation of Tobacco, which we understood at the time, would be found to be one of the best written upon the subject—We hope it will be given to the world—He is not the man to hide his light under a bushel, and flatter ourselves it will be forthcoming.

The essay furnished by us to Mr. Mayer, was a prize essay, for which a full sett of the "AMERICAN FARMER," from its commencement to the time of the publishing thereof, was awarded by us, to a gentleman of Prince George's county—we published it in our journal, and have a number of copies on hand which we will with pleasure, present to any one desirous of obtaining it. Some of the other papers spoken of by the correspondent of Mr. Mayer, were also prize essays, published by the present proprietor of the "FARMER."

RUSSIAN IMPERIAL ECONOMICAL SOCIETY OF ST. PETERSBOURG.

15TH JULY, 1847. No. 1147.

To BRANZ MAYER, ESQ., *Member of the Economical Society of the United States, at Baltimore.*

SIR:—Having had the honor of receiving, in the

month of March, of this year, your kind letter, dated Baltimore, the 15th of October, 1846, together with a small package of Tobacco Seed, cultivated on the farm of Gen. CHAPMAN, in Maryland, which you have sent to me by the request of His Excellency, Colonel TODD, late American Envoy to Russia, I presented it to the Russian Imperial Economical Society on its first general assembly, together with some printed essays. The Society having, at the same time, received from Mr. TODD, by the kindness of AARON H. PALMER, Esq. of New York, some agricultural tracts, desired me to express to you and to our esteemed friend, Col. TODD, the Society's grateful thanks, and to inform you at the same time that the seeds were distributed to some of the members of our Society, who sowed them and they came up beautifully; and the Society ordered that the essays on the cultivation of tobacco, should be translated in the Russian language, printed and distributed to farmers and land proprietors in Russia. In consequence of which the essays are translated and are now printing.

I am, sir, very happy to be the organ of the Economical Society, in expressing to you the feelings of gratitude of the Society, and I have to add to it that it would be very kind of you to communicate to us some further particulars concerning the management of tobacco in your country, and especially the essay of Judge BEATTY, published in the Kentucky Farmer, in March, 1841, and other similar writings.

As now we hear that there is to be established a regular Steam communication between the United States and Russia, by the way of Bremen, I hope that we may have the honor of hearing very soon from you. The transactions of our Economical Society, printed in the German language, I hope to forward to you by the kindness of the American Embassy.

I am sir, your most obedient servant,
ALEXANDER DJUNKOOSKY.
Perpetual Secretary to the Society, Actual Counsellor of State of His Russian Imperial Majesty.

THE LATE NEWS FROM EUROPE.

The steamer Cambria, at Boston, on the 19th, brings advices to 4th October from Liverpool. There had been immense failures in England, and the money market was consequently in a *very* unsettled state, which, together with the prospect of a good harvest depressed the grain market there. Indian Corn, however, remained firm.—In this country there has been no decline, in consequence of the news.

The great freshet, during the past month, having suspended many of the mills, and the interruption occasioned thereby to the Pennsylvania canals, (which it is thought will not be navigable again during the season) preventing supplies reaching market, has had a tendencey to keep up prices on the Atlantic seabord—and we think we can flatter ourselves that our farmers will continue to receive a remunerating price for their grain during the coming year; but they have no reason to look for the same rates which were received for the last crop.

The New York Express after the receipt and digestion of the news, remarks:

The news from Europe has put down the price of Cotton full one cent; but exporters demand a reduction of two cents before they will come into market. The news has had no influence on Breadstuffs. Flour is higher here than it is in England, and prices are sustained by the active demand for home consumption. Flour, Corn, Wheat and Rye are all in request, at improving prices.

The New York Courier, referring to the news, says:

It would seem that the potato is in danger in Europe, as here. We shall therefore have a demand not inconsiderable for another year for our INDIAN CORN—and if our farmers do not hold back too long, and then drive the markets in England up so as to bring out the grain from the European farmer's hands, who are also holding back for higher prices, we shall have still a good market abroad for our WHEAT at fair and living prices. But if, by holding on too long here and keeping the prices too high for shipment, we leave the field to European agriculture, that will all at once, when the higher prices come, supply the demand, and consequently shut us out—it were wise in our farmers to take the present price.

The difficulty that seems most in the way of large importations of breadstuffs still by England, is that of paying for them. She cannot part with her gold to any extent without breaking her Bank. But we want iron quite as much as gold, and many other things that she produces and manufactures—and high prices of food and money will redeem the prices of other commodities, so as to enable her, with them, to pay for food, instead of with gold.

We therefore anticipate a considerable exportation of breadstuffs in the coming year.

The English markets are referred to in the telegraphic report. It may be stated in addition, that uneasiness was felt about the state of the Potato Crop—and there, as here, it seems probable, it will be greatly injured by disease.

The N. Y. Tribune has the following paragraph:

We connot learn upon diligent inquiry that the new failures in England, announced by the Cambria, are likely to affect us unfavorably in this country. Connections of the bankrupt houses were generally in other portions of the globe. Wall street has begun to feel its financial Independence of the London money market, and the tremendous crisis through which the commercial world of England is now passing gives the croaker no opportunity to bear stock at half per cent. The effects of this reaction, if they react at all upon this country, will not be immediately felt, and may be entirely averted by circumstances. Should the failures extend among the manufacturers, the Cotton interest may feel it in the reduced consumption caused by the closing of mills, but the new capital would doubtless seek that avenue of investment, should there be a demand for manufactures. The stringent action of the Bank proves that the pressure for money in London must be almost unparalleled. The numerous and heavy failures must, however, lessen the demand for money, and relieve the pressure for those who are undoubtedly solvent.

The Harvest and the Crops.—A Liverpool circular thus sums up the probable results of the harvest just concluded:

"There seems to be little difference of opinion as to the productions of the harvest of the United Kingdom. Barley is probably the greatest crop we ever grew.—Wheat, on the whole, has been good, and

something better than last year; but the quality is not generally so fine. Oats prove a good fair crop. Beans and peas are deficient probably fully one-third. The potato disease is again spoken of, but as of a less destructive character than the last two years. There is, however only one general opinion, that a considerably less breadth of land was planted with this esculent last season. The present price is about 100 per cent over that of ordinary seasons.

"Notwithstanding that a satisfactory result may be anticipated from the late harvest, the present and prospective rate of consumption is evidently greater than it is calculated to supply; and there can be but little doubt that in the course of the next twelve months large importations of breadstuffs from abroad will be required, and obtained at moderate rates, as the Continental and American harvests are reported of even more favorably than our own."

[From the Scientific American.]

PREPARATION OF HEMP AND FLAX.

This is a branch of Agricultural industry which we are sure may be, and ought to be, largely increased. We have an abundance of cheap and fertile soil congenial to these plants, and their fibre may be produced so cheaply as to rival and supersede to a great extent the production of Cotton. All that has thus far hindered the extensive cultivation of Hemp and Flax in this country has been the defectiveness of our processes for rotting and dressing them. Dew-rotting destroys half the value of Hemp—Water-rotting is expensive and unhealthful; while the rude and wretched processes of Flax-dressing hitherto tolerated rendered the cost of such dressing equal to the value of the product, and so rendered the culture to an extent hopelessly unprofitable. But all this is now to be changed. There has been invented in the West during the last five or six years, various improvements in the mode of rotting and dressing Hemp (applicable to Flax also,) which diminish the cost immensely, and greatly improve the product both in quantity and quality. Of these inventions, three at least have come to our knowledge, all professing to combine surprising celerity with cheapness, both in rotting and dressing, and to obviate all objections to water-rotting on the score of health. One of them professes to perfect the rotting process in about twelve hours; the longest time required by any of them is not over two days. Some of these processes require rather expensive machinery; others are completed at a very moderate cost. But we speak not of their relative merits, wishing merely to call the attention of the farming interest to the fact that such improvements have been made, and that the value of many a township may be nearly or quite doubled by introducing them. We surely ought not to go to Russia for hemp, nor to Ireland for flax, and need not if our farmers will look intelligently to their own interest, for we are confident that this is the greatest country in the world for growing hemp, and we need but direct attention to its cultivation.—We know one large factory at Troy, N. Y. that manufactures some goods containing a considerable portion of linen yarn which has all to come from Dundee, Scotland. The broad canvass for oil cloth all comes too from Dundee.

The water-rotting of hemp is a new branch of the hemp business with Western farmers. In the beginning many mistakes were made, which experience has pointed out. A better article is now produced, improvements are still making and the quantity increasing. A full supply of the article for the U. S. Navy, equal in quality to the best Russia, will in a short time be furnished, and all the demands of Commerce met.

Appended is a report from the Superintendent of U. S. Rope-walk at Charlestown, Mass., where all the Cordage for the Navy is made, showing the great strength of American water-rotted hemp; a rope of 1 13-16 inches in circumference supporting a weight of 4,716 lbs.—being more than 500 lbs. above proof:

Test of a sample of American water-rotted Hemp, sent by the Hemp Agent of Kentucky (hackled.) Rope 1 13-16 inches in circumference, made of yarns:

Untarred, No. 20,	three trials,	4431 lbs.
Tarred,	do do	3893
Untarred, No. 40,	do	4716
Tarred,	do do	4488
Proofs required to be,		4200

The St. Louis papers state that hemp is being purchased in that market for Montreal—It goes by the way of the Ohio river and canals to Kingston.

KILN-DRYING INDIAN CORN.

At the meeting of the State Agricultural Society, held at Saratoga Springs, on the 3d inst., a description was read of a new apparatus for *kiln-drying Indian Corn*, recently erected by Col. John H. Tower, of Clinton, in this county. Those who have seen the operation of this method, have no doubt of its entire success. It is thus described:

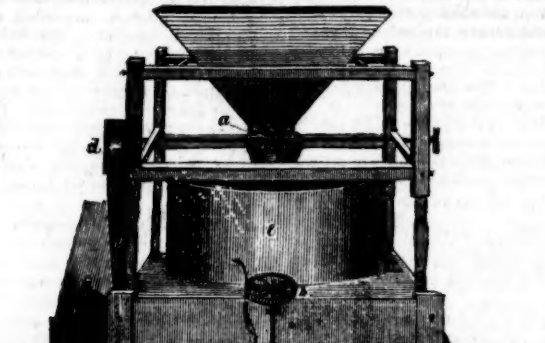
"A frame work of brick is built, arched at the top, enclosing a sheet iron cylinder, made up of separate tubes about two inches square, coupled together by iron castings. An iron shaft passes through the cylinder, sustained by a support at each end, and over a pulley at one end of this shaft, runs a belt from some of the machinery of the mill, which thus forms the motive power of the machine. The grain runs from a feeder into the head of the cylinder, thence into the tubes, and as the cylinder revolves, one end of it being elevated, the grain has a revolving motion, gradually passes forward and through into a receiver at the other end. A small furnace or common stove in the bottom of the kiln, with pipes passing from it under the cylinder, furnishes the heat, and the rapidity of the drying process depends upon the fire and elevation of the head of the cylinder, both of which can be regulated at pleasure.

"A kiln of this description with a cylinder 13 feet long and 16 inches in diameter (which will require about twenty tubes,) will readily dry from three to four hundred bushels per day, consuming not over half a cord, requiring no attention except to regulate the heat, and the whole cost of the machine cannot exceed one hundred dollars.

"Its capacity can readily be increased by increasing the size of the cylinder, or what probably would be preferable, by placing several in the same arch, and a trifling increase of expense will furnish a machine which will dry one thousand bushels per day.

"The great advantage of the invention is, that the corn (and other grain can be dried in the same manner) has a constant rotary motion, and therefore is not burned on one side before it is dry on the other. Thus, the corn comes out as bright and yellow as when it left the ear, and an article of meal is furnished for market altogether superior in appearance and value."—*Utica (N. Y.) Democrat.*

SINCLAIR & CO'S CORN MILL.



The difficulty of constructing a domestic mill possessing all the requisites necessary for plantation use, has occupied the attention of the subscribers for several years, and they are gratified to inform their customers that the object is accomplished, and the figure heading these remarks represents a mill admirably adapted for grinding corn meal and chopping rye, &c. for feeding cattle. The draught is light, and the grinding done sufficiently rapid, and fine enough for all the wants required on a plantation. The improvements and advantage of these mills are as follows: 1st. The stones (French Burr) are cut to produce the least friction, at the same time act on the grain in the most effectual manner. 2d. The feeding is performed by a revolving cup cylinder, placed at the bottom of the hopper, and so constructed that the more or less grain can be thrown out at pleasure and at regular intervals. 3d improvement, and the most important, is that by this plan, the upper instead of the lower stone revolves (this is not the case with other similar domestic mills,) which by a new and novel fixture is operated upon by a double-jointed lever in such manner as to give the upper running stone any desired pressure, thus obviating the necessity of using large stones to obtain weight sufficient to grind fine meal—the employment of which would cause such increased draught and bulk as to render them useless for private use. This last improvement, and also the 2d, could be advantageously adopted in our Merchant Mills, by which lighter and cheaper stones could be used and more regular and perfect performance result—we have made but two sizes, 20 and 24 inch (diameter) stones, either may be worked by a well constructed four horse power. The quantity of meal they will grind per hour, is 3 to 4 bushels—and chopped rye, &c. 5a7 bushels.

The stone should not be driven to exceed 250 revolutions per minute—a greater speed will cause the corn, &c. to collect in the eye of the running stone and entirely stop the process of feeding.

Price for 20 inch Burr Mills, - - - - $125.00
" 24 inch Burr Mills, - - - - 150.00

Larger or smaller sizes made to order and sold at prices in proportion.

R. SINCLAIR, JR. & CO.
Manufacturers & Seedsmen—Baltimore.

[The above described mill of Messrs. Sinclair & Co., in addition to the regular premium, also received an additional gratuity of $5 from the Prince George's Agricultural Society, at its late exhibition. We have seen the mill in operation, and can speak of it from personal observation, as a most efficient article for the purposes for which it is intended; and we have no doubt it will soon find its way to many a plantation, where its value will be fully tested.—*Ed. Am. Farmer.*]

COLOR FROM ST. JOHN'S WORT.—The flowers and tops of this plant contain a juice soluble in water, spirits of wine, or vinegar. With the first two liquids it forms a red color, resembling blood, and the latter a splendid crimson; when alum and a portion of potash are added to a strong solution of juice in water, it becomes a permanent yellow dye for cloth, cotton, paper, &c.

AN EXCELLENT AND CHEAP PUDDING.—One pint of rice, twelve apples of good size, and sour; pare, core, and slice them; mix the rice and sliced apples, put all in a bag and boil for half an hour. The bag must be large enough to allow the rice to swell, and yet no larger than the rice, when swelled, will fill. Eat with any sauce that suits the taste; butter and sugar is excellent.

A DISCOURSE UPON AGRICULTURE:

At a Meeting of the Citizens of Oxford, and vicinity, Chester County, Penn., assembled for the purpose of forming an Agricultural Society, September 4, 1847.

By William Darlington, M. D.

And he gave it for his opinion, "that whoever could make two ears of corn, or two blades of grass, to grow upon a spot of ground where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of Politicians put together."—*Gulliver's Travels.*

[PUBLISHED BY REQUEST.]

Gentlemen:—Having, on some previous occasions, uttered all that I really had to say, in reference to the noble pursuit in which you are engaged,—I had arrived at the very natural conclusion, that I was finally done with the subject: But a call for a renewed evidence of my good will to the cause, proceeding from a district of my native County in which Agricultural skill and enterprise are so conspicuous, was found to be irresistible—notwithstanding my conscious inability to respond, in appropriate terms, to the flattering invitation. Were it as practicable to renovate an exhausted intellect, as it is to restore verdure and fertility to a worn-out soil, the demonstrations of successful culture, in this vicinity, might almost warrant a hope of reproducing before you—with something of original freshness—the results of past observations and reflection:—for, in truth, I can but serve up, anew, thoughts and opinions which have been long entertained, and repeatedly expressed. It is vain, however, to apply the theory of terrestrial culture to cases of intellectual exhaustion; and therefore I must rely entirely upon your good nature, to tolerate the repetition of views which have been heretofore presented to my Agricultural fellow citizens.

In complying with the request to prepare a Discourse for this occasion, there was an additional motive to the effort, in the recollection that a goodly portion of the improvement, every where so visible in this region, owes its introduction to the discernment, skill, and persevering energy of a departed Friend, whose memory is deservedly dear to all who knew him,—and will be especially cherished in the district where his example was so beneficial to all around him. I have long felt that some tribute, or testimonial, was due to the memory and services of one who did so much for the advancement both of Agriculture and Manufactures; and the present seemed a fitting opportunity for an attempt to discharge that duty. To the older residents of the vicinage, it will be unnecessary to say, that my allusion is to the late Col. David Dickey,—a man whose uprightness, sagacity, and active public spirit, rendered him an ornament and a benefactor to the community in which he lived. It was my happiness to know him well: and the last public employment in which either of us was engaged, made it my agreeable duty to serve as his colleague, in a joint commission from the several counties traversed by the *State Road*,—which, passing in our midst, extends from New Jersey to the Maryland line. That service, I have the satisfaction to believe, was performed in a manner generally acceptable to those concerned: and it is but justice to the memory of my lamented colleague, to say, that much of the value of that performance was owing to the same zeal, activity, and sound judgment, which he had previously displayed in his agricultural improvements. His was, emphatically, one of those enterprising spirits which are sent among us from time to time—and as it were providentially—to demonstrate, and to teach thoughtless, sluggish mortals, how much an *Individual* may accomplish, in promoting the welfare of our race. But if *Individuals*, by their isolated efforts and example, can exert such a salutary influence upon the community—what may we not hope from the joint labors of *associated* intelligence? It will scarcely be questioned, I think, that we were designed for social beings. Man is, by nature, a gregarious animal,—and evidently intended for the performance of mutual good offices. Even in his rudest condition, he soon learns the importance of co-operation with his fellows in producing desired results: and as he advances in civilization and refinement, he discovers that the benefits to be derived from combined skill and energy are in a direct ratio with his progress in improvement. The developments of Science not only excite a salutary emulation among individuals,—but they also show how much more may be accomplished by a concentration of effort—by a skilful union, and concert, of individual talent and energy.—Hence the resort to *Societies*, for the promotion of desirable objects. By a judicious combination of their several means, and capacities, in the mode best suited to render them all available, men have accomplished purposes which, *individually*, they could never hope to perform.

Associated efforts having been found thus valuable, in all great works of Art, requiring skill and force—and in the prosecution of researches after Scientific Truth,—the inquiry is naturally suggested, why the important business of *Agriculture*, may not, also, be benefitted by a resort to similar expedients. Is there no sort of knowledge involved in successful Agriculture, which may be reciprocated, with good effect, among the members of a Society—or promoted by a generous co-operation? Is there no scientific or practical skill requisite, in the amelioration of soils—the culture of plants—or the management of stock—which may be advantageously imparted by the experienced, for the benefit of young beginners? If there are truths in Nature, which farmers are interested to know—or processes in Art, wherein dexterity and economy are desirable,—can any good reason be assigned why the cultivators of the soil should not associate, to secure to themselves those advantages? It may, perhaps, be alleged,—for the unreflecting do often make such random allegations,—that Agriculture is essentially a *practical* Profession; and therefore has little occasion for artistical skill, or scientific accomplishments. I am prepared to admit all that can be fairly urged in behalf of sound experience, and plain practical common sense—not only in Agriculture, but—in all human pursuits. I grant that the cultivation of the soil is eminently a matter-of-fact business. It is true, moreover, that the veriest clod-poll in the land may pursue the beaten track of his annual labors with tolerable success,—and may gather in his crops with little more knowledge, of the objects around him, than is possessed by the cattle he drives: But I can never believe that *true knowledge* is injurious to the operatives, or to the interests, of any profession, or business;—nor can I be persuaded that boorish ignorance is the proper condition and character of a thorough-bred Agriculturist. Most assuredly, it is not the appropriate character of an American Farmer. While I not only agree, but would insist, that a sound *practical* knowledge of their profession should be the primary object of the cultivators of the soil,—I must, at

the same time, contend for the feasibility and necessity—in the existing state of society, and under Institutions like ours—of an adequate acquaintance with the laws of nature, and with the properties and true character of the objects immediately concerned in Agriculture.—That acquaintance, of course, shou ld be based on correct scientific principles,—so as to be always available when applied to the useful purposes of life. I hold it, indeed, to be essential to the safety and duration of this Republic, that our *Yeomanry* should keep pace with the march of general intelligence. As they value their just rights, and would cherish the attributes of Freemen, they must take care that their attainments never lag behind the age in which they live,—nor they, themselves, become unfit to mingle, and to struggle, with the master spirits who, for good or for evil, are ever seeking to direct the course and control the progress of communities. *Agriculturists* being a majority of this nation, it is perfectly obvious that they must be either the intelligent regulators of its glorious career,—or the blind instruments of its destiny in the hands of artful Demagogues;—and consequently they will be held responsible for the fate of the Republic, by their remotest posterity. Ought they not, then, to employ every means, and exert every nerve, to qualify themselves for the high duties thus devolved upon them?

There is nothing unreasonable, nor extraordinary, in the acquirements thus indicated as appropriate and indispensable to the *American Farmer*. In a nation fitted for Freedom—or which hopes to continue free—such attainments are enjoined upon all classes and descriptions of the People.* Where men stand unfettered on the platform of equal rights, it is justly expected of every one, that he shall qualify himself to meet all the responsibilities belonging to his station in society: and this is eminently true of the particular business to which he is devoted. The remark is as correct as it is pointed and forcible, that "where knowledge is a duty, ignorance is a crime." No man should be held excusable for neglecting the opportunity to inform himself of that which it is his interest and his duty to know. *Professional men*, so termed, are bound to be familiar with the entire history, and with every department, of their several callings. The *Jurist* must make himself acquainted with the intellectual processes whence our present *rule of action* has been deduced,—in order that he may correctly apply that rule to all cases of difficulty between man and man. The *Physician* is required to know the structure of the human body, and to understand the laws of the animal economy,—so that he may avail himself of that knowledge, when called upon to relieve the various "ills that flesh is heir to": And the *Divine*, also—whose sacred office it is to minister to our spiritual wants,—to expound the objects of our probationary existence here, and "vindicate the ways of God to man,"—even he is expected to furnish "a reason for the faith that is in him." *Artists*, and operatives of every description, who would adorn their several pursuits, find it necessary to understand the *theory*, or principles, involved in their manipulations,—as well as to become expert in the practical details. Such being the unquestionable fact, in reference to all other vocations,—it may well be demanded, why the business of *Agriculture*—itself a comprehensive system of Natural Science, involving more or less an acquaintance with all physical laws, and all terrestrial phenomena—and being moreover the great substratum and support of every other human pursuit,—*why should Agriculture, alone*, of all earthly employments, be regarded as calling for no scientific attainments—no intelligent observation of the varied natural objects, the interesting facts, and curious processes, around us: in other words—no rational exercise of the intellectual faculties with which a beneficent Creator has endowed us? It was, indeed, wisely provided, that an art to which the whole human family is indebted for sustenance, should be so simple in its essential features, that even stupidity can make a living, and mere muscular energy be profitably employed, in its prosecution: But, in the nature of things, it cannot be, that a business involving so much of Natural History—and controlled by so many of the laws indelibly impressed upon matter,—it can never be predicated of such a pursuit, that a knowledge of its true principles is superfluous—nor that its best interests may not be promoted by a cultivated intellect. I shall therefore assume, as an established position, that a knowledge of the Profession, *in all its relations*, is requisite to ensure the perfection of Agriculture, and to elevate it to its proper rank: and moreover, that in a country where Laws rule, and the Yeomanry have a potential voice in their enactment, it is indispensable to the perpetuity of their Institutions, that an Agricultural people should be an educated and an intelligent people.

I shall not venture, on this occasion, to trespass upon your patience, by dwelling on the practical details of the farmer. I shall make no idle attempt to entertain *you*, by descanting on the culture of fields, or the management of Stock. Instead of essaying, *here*, to teach those first lessons in the art of giving fertility to the soil, it would become me rather to seek instruction from those who have so happily demonstrated how it can be done. I have not now to learn, that *this* is precisely the district of our County, where a renovating Agriculture has achieved its greatest triumphs. I shall, therefore, avoid the well-understood topics of Lime, and Manures, and the rotation of crops: and will solicit your indulgence, for a few moments, while I advert to the expediency of promoting some of the more intellectual qualifications of the Farmer,—those interesting attainments which give an appropriate finish to the Agricultural character, and impart an additional dignity and grace to the Profession.

This, indeed, has been a favorite theme, with me, on occasions like the present: for wherever *practical* excellence was known to be established, my attention was naturally directed to those ulterior accomplishments—hitherto so little regarded—and yet, in my judgment, so worthy to be superadded. When the intelligent young Farmer has become expert in all the *manual* operations of his Profession, and understands the whole *practical routine* of Agriculture,—what can more appropriately claim his attention, than the intimate nature—the structure or composition, the properties and relations—of the various objects involved in his pursuit? Why should he not make himself acquainted—*scientifically* acquainted—with the character of the several *Earths* which compose the soil he cultivates? Knowledge of that description—and sufficient for all useful purposes—is readily acquired by the mind that craves rational intelligence; and when once obtained, may often be turned to good account by its possessor. It may not only enable him to become a more successful culti-

*We have the authority of that excellent man, and accomplished friend of human rights, Sir WILLIAM JONES, for the opinion—that "The principles of government are so obvious, and intelligible, that a clown may be brought to understand them."

vator—but it will also greatly enhance his interest in his employments,—rendering him a wiser and a happier man. The occupation of the Farmer, as already remarked, is emphatically with the objects of *Natural History*; and the contemplation of those objects, by an observing and disciplined mind, is a continual source of instruction and gratification. His studies, indeed, are mainly *utilitarian*, in their character,—but, if rightly directed, are calculated to expand and elevate his views of the Creator's works: for they embrace, to some extent, the three grand divisions of the material world—the Mineral, the Vegetable, and the Animal kingdoms. The first business of the skilful Agriculturist, is with the inorganic matter of the *Mineral* kingdom,—so far, at least, as may be requisite to understand the quality of the *soil*, and the best mode of improving and managing it—so that it shall sustain the greatest amount of organic life. His next care will be extended to the primary *organized* beings,—viz: the *Vegetable* creation;—so regulating the production as to secure the largest contribution towards the sustenance of the most valuable animals. This is *Agriculture*, in a technical and restricted sense (i. e. *the culture of the fields*,)—and implies, of course, an acquantance with the *Plants* cultivated—or a portion of what is denominated *Botanical* science. But the end and aim of the Farmer's operations, in the promotion of vegetable growth, is to support the higher organization of the *Animal* kingdom,—and, by the multiplication of his flocks and herds, to enhance the comforts, and favor the increase, of the human family. Hence the science of *Zoology* is involved,—and the wonderful laws of the animal economy present a claim to be studied and understood. Thus it is manifest, that the Farmer is directly interested in possessing *some* knowledge of the three great kingdoms in Nature; and it will scarcely be doubted that his knowledge, of whatever extent, will be valuable in proportion to its *scientific accuracy*.

I would, therefore, exhort our young Farmers to acquire so much Natural Science as will enable them certainly to know, and to discriminate between, the more important objects of their daily care and attention,—and by means of which they may also treat of those objects intelligently, and correctly, in their intercourse with others. They should be so far acquainted with *Geology*, and *Minerals*—and understand so much of *Chemistry* and its laws—as to have a general idea of the structure and stratification of the Earth's crust, and a just conception of the reciprocal influences exerted by the constituent portions of the soil, and the atmosphere. This information may now be readily obtained, from elementary works within the reach of every one who has the taste or the inclination to possess it: But, that all might have a fair and equal opportunity to profit by such knowledge, according to their several capacities, it should be made an indispensable branch of the education of youth, and faithfully imparted, by competent teachers, to every child in the Republic. Until such instruction shall be provided, it may be confidently maintained, that no better substitute can be devised, than is afforded by the intercourse of intelligent public-spirited men, in well-conducted *Associations*.

Similar remarks may be applied to the expediency of a reasonable acquaintance with the *Vegetable*, and the *Animal* kingdoms. What sort of an Agriculturist is he—in this age, and country—who is so ignorant of the interesting *Plants*, on his own farm, as to be continually overlooking the most pernicious weeds, when they invade his premises—or mistaking, for them, those of a comparatively harmless character;—and who knows so little, even of those he annually cultivates, as to be unable to designate them by a name that is certainly comprehended, beyond the limits of his native parish? Is the young American Farmer, who can rest contented with such imperfect intelligence in his immediate Profession,—is *he* calculated—in this progressive era—to advance the interests, or maintain the appropriate rank, of that first, and noblest, and most indispensable of secular employments? Surely, it ought not to be thus with *Agriculture*—when all the kindred Sciences are going ahead with rail-road velocity. The several departments of knowledge are auxiliary to each other. They reciprocate lights, by which their obscurest truths are illustrated. They should, therefore, all proceed with equal step. It is not necessary—neither would it be expedient—for the practical Farmer to spend his time in studying the unimportant species of the vegetable creation,—nor in tracing the distinctive features of all the various tribes—"from the cedar tree that is in Lebanon, even unto the hyssop that springeth out of the wall:" But, as his business is especially with the more interesting kinds—with the *culture of useful plants*, and the *extirpation of pernicious weeds*,—I hold it to be his duty to acquire a knowledge of *these*; and such a knowledge, too, as shall be adequate, both to the proper management of them, and to the delineation, when called for, of their true botanical character. This would be a limited task, and an easy attainment,—quite within the reach of every ordinary capacity. Some three or four hundred species, comprise all the more important plants usually observable on our farms—whether in the forest, the fields, or the kitchen-garden; and it must be an obtuse intellect, indeed, which cannot learn to know and distinguish that number of vegetable forms. The juvenile pupils of some of our Female Seminaries are, every year, demonstrating the facility with which the task may be performed.*

I shall not detain you with observations concerning the importance of *Zoological* information: for *that* is a kind of knowledge so intimately connected with our prosperity and comfort, that we cannot well avoid the acquisition of a reasonable share,—at least, with reference to the larger animals which are domesticated, or indispensable on the farm. Our daily habits and associations force the attainment on us all. The rudest bumpkin that ever heedlessly trampled upon flowers—or worked among weeds, without being able to distinguish one from another,—is nevertheless compelled to become acquainted, in some degree, with both the valuable and the mischievous animals,—fowls, as well as quadrupeds: indeed, it is wonderful to observe how well, and thoroughly, such untutored persons do often learn the distinguishing traits—the dispositions, and the characteristic peculiarities—of animated nature. Still, there is a *scientific aspect*, of which every department of Natural History is susceptible,—under which it assumes a methodical perspicuity—an illustrative arrange-

*It may, perhaps, be admissible to mention, here, that I have recently compiled a sort of *Farmer's Flora*,—or a descriptive enumeration of those Plants which are most interesting to the American Agriculturist—and of which it is scarcely reputable to be ignorant. It was prepared in the hope of thereby promoting a kind of knowledge which I have long thought desirable,—and is designed more especially for the use of our enterprising *young Farmers*. I would beg leave to add, however, that I have not the slightest personal, or pecuniary interest, in the success of the work;—for I made a *Present* of the Manuscript to the first Printer I found, who had the courage to risk the publication.

ment—which is exceedingly gratifying, as well as instructive,—and merits the attention of all inquiring minds. There is, moreover, a *branch* of Zoology,—embracing myriads of tiny creatures—and many of them of the most destructive character to the hopes of the Farmer,—which is yet imperfectly understood, and demands the closest scrutiny of every one concerned in the products of the vegetable kingdom. I refer, of course, to the multitudinous *Insect* tribes;—some of which are occasionally so injurious as to spread dismay throughout whole nations,—and, at the same time, of habits so obscure as to require the most patient observation, and the utmost sagacity, to ascertain their true history. Even these minute researches—too generally neglected or despised—are demanded by the best interests of Agriculture;—and to be successful, they must be conducted on scientific principles. A little mental discipline, however—backed by perseverance—will soon enable the curious observer of Nature to make valuable contributions to the common stock of information. I would therefore have every *American Farmer*, who can appreciate the responsibilities of his position, to cultivate his intellect with the same care and assiduity that he does his acres. Let him habituate himself to note the facts—to observe the phenomena—and to investigate the theory of the processes—which are continually taking place around him: and let no one delude himself into the belief—nor seek to excuse his deficiencies by the stale and hackneyed plea—that he has not *time* for such pursuits. Why, these very pursuits are part and parcel—and a very important part, too—of his own appropriate business. It is precisely for such business that his *time* is allotted to him. At this day, and in this land, it will not do, to urge the want, either of time or opportunity, for the due performance of our parts in life. Most people contrive to find time for what they really wish to do; and if driven to the necessity, are apt to *take* it, at any rate, for those pursuits which they are resolved upon. But the fact is, we all idle away, or waste in frivolous amusements, more time than would be requisite to fit us for the performance of our several duties. We are very prone to mistake the real nature of our *wants*. It is not so much to the *want of time*, as to the *want of inclination*, and of a proper sense of our responsibilities, that we should attribute our failure to possess the accomplishments which justly pertain to our profession, and station in society. It is *this want*—this neglect of the more elevated attainments, and this lack of a just perception of the beautiful—which has, hitherto, been most striking and conspicuous among the Agriculturists of our country. While our Farmers have generally attended—faithfully and successfully—to what is familiarly and truly denominated "the main chance,"—it must be confessed that too many among them have exhibited a lamentable want of tact and skill in planning and improving,—or in availing themselves of natural advantages, in the arrangement of their rural establishments.

Next in importance to successful culture, and a correct knowledge of the objects and principles involved in the process, is the attainment known as good *Taste*,—or that refined sense of the beauties of Nature, which knows how to appropriate her charms, in the embellishment of farm-houses, or cottages—and to invest them with that witchery and grace which should ever be associated with a country residence. No person, who has enjoyed the delights of a tasteful rustic dwelling—embossed among venerable trees, and reposing amid the verdure of flower-spangled lawns,—can fail to be shocked at the contrast of a rude vulgar-looking tenement, awkwardly stuck in some open weed-grown space, without a shade-tree, or an enclosure, to protect it from the rays of a burning sun, or the annoying approaches of the trampling cattle: and yet the difference may be entirely owing to the exercise of a cultivated taste in the one case, and a total destitution of it in the other. *Fruit trees*, and *Shade trees*, should be regarded as indispensable appendages of every human residence. If duly attended to, the former will amply gratify the palate,—while the latter will also minister to our enjoyment—directly, by the refreshing shelter afforded to ourselves—and indirectly, by attracting to their branches the lovely Serenaders of the feathered race. How delightful, in a tree-embowered cottage, to be roused from our slumbers by the gushing melodies, which, in such abodes, ever greet the dawn of a summer morning! By providing a shady retreat for the little warblers—and protecting them from the weapons of reckless sportsmen—we not only secure their punctual attendance, with the grateful tribute of their vocal strains, on each returning Spring,—but we are rewarded, tenfold, for all such benevolent offices, by the industry, with which the welcome visitors labor to rid us of annoying and destructive Insects. It should, therefore, be the business and the pleasure of the intelligent Farmer—wherever located—thus to improve and adorn his premises. In a region so rich in native attractions, as our own favored *County of Chester*, it should be the study and ambition of every occupant of her soil, to develop all her Agricultural resources,—to acquire for himself, the knowledge and scientific skill which rightfully belong to his Profession,—and, by the exercise of a refined taste, to make our ancient Bailiwick as eminent for the beauty of her Country Seats, as she has long been for the neatness and fertility of her cultivated fields.

[From the American Agriculturist.]

PRODUCTION AND PREPARATION OF CORN FOR THE EUROPEAN MARKET.

The present season seems fully to have settled the question in favor of an immense exportation of Indian corn to European ports hereafter. Necessity and famine have overcome prejudices against its use there which heretofore had been unsurmountable. Appetite has given to it a relish and a flavor, which otherwise it would have never been found to possess; and the recollection that it has saved millions from famine, will hereafter endear its use to the multitudes abroad wherever it can be had.

To provide for this permanent demand, is now the proper duty, as it will be the decided interest of the American farmer. Yet this should be done within reasonable bounds. It will not do for the sugar or cotton planter, the hemp, the wheat, or the tobacco grower, to abandon his accustomed crops, and to divert from their appropriate uses soils little suited to the growth of corn, nor for the graziers, the stock-breeder, or the shepherd, to neglect or turn from his legitimate pursuits, to the cultivation of this grain. If any absurd system like this be adopted, to any extent, corn will go down and the neglected crops will go up, till the scale is reversed.

Yet there is danger of this. Americans are too impulsive, too excitable, and it is too often a feast or a famine with them. If an article or pursuit seems to pay, every one rushes into it; if appearances are against it, they are for abandoning it in the mass.

We run from agriculture to manufactures, from manufactures to trade, and from trade to speculation. At one moment we have a high tariff, at another scarcely any: sometimes we have no banks, at others every village may boast of its own, and the excess soon reduces the country to utter destitution again. Our pendulum is ever on the swing, and dashes far beyond the centre of gravity on either side; and if our ship gets a little out of trim, we are all so eager to right it that we rush tumultuously to one side and careen her worse than ever.

A slight addition to the quantity of acres now devoted to the culture of corn, with more careful planting, manuring, and cultivation, and with greater economy in its feeding and use, will swell immensely the annual amount sent forward to the shipping ports. Added to this, new land is constantly brought into cultivation, and with high prices and an unstinted demand staring us in the face, what so likely to command attention as an article that pays so well and makes such immediate return? The capital required for growing this crop is so near to nothing as to be inappreciable. In some places, a hoe and a few bushels of seed only are required to make a large crop; and in all others a few plows, and teams to draw them, are the principal items of expense. With a boundless extent of soil reaching from Maine to Mexico, suited to its growth, with the enterprise and well-known skill of our productive classes, stimulated to the highest pitch of exorbitant demands, we may well apprehend that our future crops will rather be in excess than deficient in this article. Certain it is, that while every effort should be made for its largest production, where it is following out a present adopted system, yet in no case should a deviation from an ordinarily cultivated crop be made for the sake of this. The sugar planter, whose cane has been cut off by frost or diminished by excessive rains, or the cotton grower, whose plants have been thinned and rendered comparatively barren by caterpillars, rust, and other causes, may be inclined to turn from his course and trust his luck with corn, which is generally a surer, and may be supposed to be a more profitable crop.

It may be, and no doubt generally is, the most profitable course a planter can pursue, to divide his products to the extent of raising his own supplies for plantation use; but beyond this, it is not deemed profitable to go, by such as have lands well adapted to crops already profitably occupying their attention.

The effect of high prices in one prominent product has almost invariably the tendency of raising others; as the increased price obtained for either, stimulates demand for all. Especially is it to be apprehended, that cotton may fall behind hand for the many casualties and the low prices that have attended its culture for the last few years.

But my present object is more particularly to call the attention of the readers of the Agriculturist, at points remote from the seaboard, to the propriety of properly preparing their grain for shipment. We are now beginning to receive accounts from the heating of grain after shipment. This damage has, in many cases, exceeded one-half the entire value of the cargo; and although this loss, in the first instance, falls on the shippers, it is pretty sure, in the end, to reach back to the producer. This hazard has become so great, for the excessive tendency to heat in Indian corn, if retaining the slightest moisture when stowed in the vessel, that some of the heaviest dealers in New Orleans have determined to risk no further shipments without the grain being first fully prepared for it, and this is effectually done by kiln-drying.

Several establishments have been recently erected for this purpose in this city, two of which at least have proved defective in accomplishing the objects satisfactorily. Another is about being put up, of sufficient capacity to kiln-dry five thousands bushels per day. Kilns have already gone into operation in several of the exporting places on the river above, and there is no doubt these will be rapidly multiplied, till sufficient capacity shall have been attained to prepare effectually every bushel of grain destined to a distant market.

The best plan for this purpose, on an extensive scale, which I have seen in operation, is a new, and apparently valuable improvement for kiln-drying, the invention of Geo. W. Woodington. He is about taking out a patent for it, for himself and Mr. Geo. Gilbert, both of Cincinnati.

The first one ever erected has just been put into operation. It consists of substantial brick mason work, about twenty-four feet long, six wide, and eight high, arched with brick. The fire and grate occupy three feet of the centre, at the bottom. Immediately above the fire are iron plates, resting on the walls on either side extending the whole length. At the other end, the flame and smoke are divided and pass up through two iron pipes at each corner, and then on either side, and almost in contact with the cylinder, they turn the smoke through the kiln, where they pass out.

The cylinder is of strong sheet, light boiler iron, three feet in diameter, and occupies the entire length within the mason work. On the inside of this, flanges are riveted lengthwise and spirally, turning about 170° of the circle, in the whole length of the cylinder. It is placed one foot above the fire in an arch, which is kept at a temperature high enough effectually to dry the corn while passing through, which requires some ten minutes. The corn is fed into one end of the cylinder, by a spout leading from a hopper above, and it is discharged from the other end, and through a short iron conductor. It is capable of effectually drying 800 bushels in twenty-four hours, which it accomplishes without burning or cracking any of the kernels. Not one is scorched or discolored, but all have the bright clear appearance and original taste of the grain, while its germ or vitality is effectually destroyed, thus removing all tendency to change or injury.

I cannot but believe, that all corn destined for remote shipment hereafter, will be kiln-dryed. There is a saving of nine per cent, in freight, in consequence of loss of bulk and weight in drying, saving of insurance; there is no danger from wevil from any kiln-dried grain; and there is, lastly, the frequent saving of the whole grain, which would otherwise spoil by moisture. R. L. ALLEN.

New Orleans, April 29, 1847.

REPORT TO THE AGRICULTURAL SOCIETY OF MONTGOMERY CO. MD.

AGRICULTURAL IMPLEMENTS.

The Committee having examined the several implements offered in competition, respectfully report that they have awarded the premiums as follows, viz:

For the best 3 horse plough, to F. Coyle, of Washing.

For the best 2 horse plough, E. Whitman, of Baltimore.

For the best 1 horse plough, F. Coyle.

For the best harrow, F. Coyle.

For the best cultivator, F. Coyle.
For the best fanning mill, E. Whitman.
For the best straw cutter, L. Lyddane, of Rockville.
For the best corn sheller, E. Whitman.
For the best churn, F. Coyle.
For the best display of agricultural implements, E. Whitman.

There being no corn coverer or washing machine exhibited, the committee could award no premium for those articles.

The Committee, acting upon the discretionary power given them, award the following additional premiums, viz:

For the best subsoil plough, F. Coyle, $2.
" best revolving rake, F. Coyle, $1.

They also determined that the first premium for the best ploughman should be competed for alone by white persons, and the second premium by colored persons, and award the first to Mr. Wm. T. Lewis, and the second to negro Sandy, the property of J. P. C. Peter, Esq.

The Committee avail themselves of this mode of expressing their gratification at the very handsome display of agricultural and horticultural implements exhibited by Mr. E. Whitman, of Baltimore, and Mr. F. Coyle, of Washington, and tender to those gentlemen respectively their thanks.

JOHN A. CARTER, Chairman.

[We have seen the premiums awarded to Mr. Whitman, on the above occasion; they are most beautiful trophies, and comprise,

1st. A *Gold Medal*, valued at $10, for the best display of Agricultural Implements—($20 in cash was also awarded Mr. W. in addition, by the Society, for the same display.)

2d. A *Silver Medal*, valued at $5, for the best 2 horse Plough, (Prouty & Mears'.)

3d. A *Silver Medal*, valued at $3, for the best Wheat Fan, (Grant's)—and

4th. A *Silver Medal*, valued at $2, for the best Corn Sheller, (Whitman's.)—*Ed. Amer. Farmer.*]

HORSES.

The undersigned appointed by the Montgomery County Agricultural Society, to award premiums—1st, for the best *Stallion*—2d, for the best *Brood Mare*—3d, for the best two year old *Colt* or *Filley*—4th, for the best one year old *Colt* or *Filley*—5th, for the best *Saddle Horse*. We do hereby certify, that, in our judgments, Mr. Otho Magruder's Stallion, Hyder Ally, was the best Stallion exhibited, and is therefore entitled to the premium of a new bridle to cost five dollars. We further certify that Mr. Nathan White, exhibited the best brood mare—that Mr. Huddleson exhibited the best two year old colt; that no one year colt or filley was exhibited for premium, and that Mr. William Robertson exhibited the best saddle mare, there being no competition for saddle nags.

Given under our hands this ninth day of September, 1847, at Rockville.

NATHAN LUFBOROUGH,
BENJAMIN PERRY,
THOMAS WORTHINGTON,
HORATIO TRUNDLE,
WM. G. ROBERTSON. } Committee.

SHEEP.

The committee on sheep, after due examination of the stocks submitted for exhibition, beg leave to report that they award certificates as follows:

For the best lot of ewes, J. P. C. Peter; for the best buck, A. B. Davis; for the best lambs, N. C. Dickerson; for the best buck lamb, A. B. Davis.

The committee deem it due to Mr. J. P. C. Peter, to accredit him with due pains for the exertions he is making for the improvement in his stock of sheep, a fine specimen of which he has recently obtained from a distance.

E. J. HALL,
JULIUS WEST,
N. S. WHITE. } Committee.

FRUITS AND VEGETABLES.

The committee on fruits and vegetables beg leave to report, that, owing to the very unfavorable season for their production, there has been but little competition among the raisers of these articles this year. They cannot however forbear noticing the fine collection and variety of very choice apples furnished by Mr. Joshua Pierce of Lynnean Hill, consisting of the *Early Cellar* or *Strain Apple*, the *Gloria Mundi* or *Monstrous Pippin*, the *French Pippin* very large, the *Pennock*, large; the *Rambo* and *Red Streak*, and the latter *Winter Apples;* the whole of which we would judge to be worthy of a place in a choice apple orchard. We noticed also some very large *Quinces*, from the same establishment; the delicious *Sickel*, as well as *Butter Pear*, and *Grapes* of different varieties.

In the Vegetable department, the collection exhibited was also confined; we noticed, however, in lot No. 2, the best and the largest *Cabbage;* in lot No. 3, the largest short beets; the gigantic *Rhubarb Egg Plant* and *Pumpkin* were also very creditable.

Although probably travelling out of their province, the committee cannot refrain from noticing the beautiful display of superb *Dahlias*, which so highly ornamented the saloon, furnished and prepared by the lady proprietress of Lynnean Hill, from their variety, and the mode in which they were arranged, they evinced the great taste of the lady through whose hands they passed.

In the order in which they are noticed we recommend the premium or premiums to be allotted.

ROBERT Y. BRENT,
THOMAS I. BOWIE,
HENRY H. DENT. } Committee.

BUTTER.

Rockville, Md., Sept. 9th, 1847.

The Committee on butter to whom was referred the specimens exhibited in competition for the premium, report, that there were presented three specimens of printed butter, and one potted. That, they awarded the prize to No. 2, afterwards ascertaining to have been made by Mrs. Harding, of Rockville, Md. The other specimens were highly creditable to the competitors.

JOSHUA PIERCE, Act'g Chr'n.

POULTRY.

The Committee on Poultry, regret to say, that the exhibition in that line was very limited; there being but three of the feathered tribe on the ground contesting for the premiums. These were turkies, and although there was no competition, yet, from the great size, being of this year's growth, the Committee have no hesitation in awarding the premium of one dollar to their owner, Susan Ann Dawson.

CALEB STABLER,
JETSON GRANGER.

REPORT OF THE COMMITTEE ON MANUFACTURES.

The Committee on Manufactures award the following premiums under the direction of the Society.

Fulled Cloth, 1st pre'm,	Miss Dezellum.
" " 2d "	Mr. N. S. White
Full'd Linsey, premium,	Mrs. N. S. White
Striped " "	Miss Dezellum.
Undressed Flannel, 1st Premium	Maj. Geo. Peter.
Undressed Flannel, 2d Premium	Miss E. Dawson
Counterpane (yarn) 1st Premium	Miss C. Nicholls
Counterpane (yarn) 2d Premium	Miss E. Dawson
Pair of Blankets, 1st Premium	Miss E. Dawson
Pair of Blankets, 2d Premium	Mrs. N. S. White
Carpeting 1st premium,	Miss A. Noland.
" 2d "	Miss E. Dawson
Hearth Rug, premium,	Miss S. Dawson
Linen "	Miss E Dawson
Table Diaper 1st premium,	Miss S. Dawson
" " 2d "	Miss E. Dawson
Towelling, premium,	Miss E. Dawson
Yarn Stockings, premium,	Miss E. Dawson
Thread " "	Miss E Dawson
Cotton " "	Miss C. Kilgour
Yarn Gloves, "	Miss S. Dawson
Sewing Silk, "	Mrs. H. W. Blunt
Quilt Fancy, $2 1st premium,	Mrs. S. Smith.
Quilt White, $2 2d premium,	Mrs. J. A. Carter.
Worsted Sack $3 premium,	Miss M. Heyne.
Worsted Embroidery, premium $2	Mrs. Julia Balch.
Infant Socks, $1 premium,	Miss R. I. Carter
Currant Wine 1 "	Miss E. Clopper.

The Committee take the opportunity to return their thanks to Mr. Ramsburg, for the display of gloves and dressed skins of every discription—also to Mr. Thomas and Mr. Lutz, for their fine exhibition of saddlery—to Mr. Clopper and Mr. Fawcett, for the exhibition of substantial manufactured cloths and cassinetts, and more especially to those ladies and gentlemen, who have furnished so rich and beautiful an exhibition of fruits and flowers which ornament this room.

HENRY BRADLEY,
E. J. HALL,
SAMUEL BLUNT,
NINIAN BEALL.

Rockville, Sept. 8, 1847.

THE USE OF GUANO IN MONTGOMERY COUNTY, Md.

The people of this county seem to have become entirely convinced of the great advantages arising from the application of Guano to their soil. The discovery of its magic influence upon the soil in the increase of the productions of the vegetable kingdom, has formed a new era in farming operations, and awakened the sluggard at his plough, who gazes with wonder as he beholds the heretofore barren fields around him covered with luxuriant crops in the place of the brambles and sedge grass which formerly covered it, and all effected in a few short months. The farmer who formerly toiled in vain to enrich his few acres, has found in the use of the guano, when applied to his abandoned fields, such a fertilizing influence as to astonish the advocate of the old system, and even to entice him from his beaten track to another mode of operation altogether new;—by which he can more than double his former crops, restore his unproductive soil and greatly add to the value of his property. This valuable improvement has served to check the spirit of emigration which but a few years ago alarmingly threatened to depopulate large portions of Montgomery county. The elysian fields of the west have now no allurements sufficient to induce the farmer to leave his native homestead, generally endeared by many associations of the past; and this too is all accomplished by the use of guano, an elixir of life to poor lands.

What can be more substantially said upon this subject, is, that Guano is absolutely effecting a change in the features of that county, and has instilled into the farmers a spirit of improvement that will, ere long, render its kind soil as productive as any other in the State. As a proof of this, within the last week, farmers of Montgomery to our knowledge, have purchased no less than SEVENTY TONS of this valuable manure, which have passed through our place alone, and in all probability this is not the half that others have procured.—*Georgetown Adv.*

HORTICULTURAL.

WORK IN THE GARDEN.

At this season of the year there is not much to attend to in this department of the farm, and if there were, our hints might be unnecessary, as it is the one over which *woman*, with her ever provident care, presides supreme; and it is not flattery to say that she is never remiss in the discharge of any duty whose performance is productive of human comfort, being ever impelled by the noble impulses of her heart to forget self in her desire to advance the happiness of those around her. But lest we might be chargeable with a feeling of neglect, which we may not indulge, we will specify a few of the more prominent things that should be attended to.

Asparagus Beds.—If these have not already been cleaned off and dressed, they may still be attended to. The best manure to dress with is a compost made of seven parts rotten manure and 1 of ashes; to be placed between the rows and forked in. That done let the bed be sown broadcast with salt so as to whiten the surface of the soil.

Strawberry Beds.—Should these not have been weeded and dressed, let them be done so without delay. Being weeded, cover the roots with a dressing of rich mould, dig it in and lay long straw between the rows which must be fastened down with wooden forks.

Shrubs of all kinds, whether *fruit* or *flower*, may now be set out, better now than in the spring, as they will be certain to bear fruit and bloom.

Garden Herbs of all kinds.—This is a good period to transplant all kinds of garden herbs, as *Sage, Thyme, Chives, Shallots, &c.*

Bulbous Roots for flowering should now be set out, as the tulip, hyacinth, &c.

Dahlias.—Take these up, cut the tops off and bury the roots in sand.

Cabbages.—Take these up before the frost sets in heavy, and put them away secure for winter use.

Tomatoes.—If you have any tomatoes on your vines partially ripened, pull up the vines and hang them up in your barn, and you may continue your supply of tomatoes until Christmas.

Beets, Carrots, Parsnips.—Before the frost injures these, have them dug and buried, or packed away in your cellar, taking care if cared for in the cellar to exclude the light from them by a covering of straw.

Horse Radish.—A supply of this healthful condiment may be preserved for use during winter, by burying it in sand in the cellar.

Fruit Trees.—If you design planting any choice fruit trees in your garden do so this month. As to the mode of planting we refer you to our article under the head of "*Work on the Farm.*"

If you have fruit trees in your garden treat them in the same manner as we recommend for those of the orchard.

If the Garden and around the house are destitute of shade trees and flowering shrubs, we would advise the good housewife to have some planted, as such attention to the decoration of the homestead never fails to increase the attachment of the husband to his home, and draw him closer and closer to the wife to whose taste he is indebted for the embellishment of his estate. Make a man proud of his home and you never fail to inspire him with increased love for those around him.

Stiff Beds.—If there be any stiff beds of clay in the garden, they should be dug up spade deep, and covered 4 inches deep with *sand*, river sand the best.—In the spring, rake the ground thoroughly, then dig it up half spade deep, rake, manure, and re-dig it half spade deep. These processes will have mixed the sand with the clay into a friable clayey loam, and fitted it for any horticultural purpose whatsoever. It will then be more easy to work, and will produce more and better vegetables.

INFLUENCE OF THE MALE IN SHEEP-BREEDING.—I am aware that many do not fully realize how highly essential it is that we breed from none but the most perfect of male animals. It is truly astonishing to look about among wool-growers, and see how much indifference, how little discrimination is generally manifested on this point. Many have not that extensive experience, combined with scrutinizing observation, to enable them to make the best selections, provided they have the means, disposition, and an opportunity; others are so destitute of the spirit of improvement, think so much of present labor and expense, that they will not pursue a course that would in the end be productive of the highest benefit. Much of this results from the want of knowledge as to the true comparative value of breeding animals. This value is not to be computed by the present difference in the value of the fleece and carcass; but by the difference in the value of the offspring.

Suppose, for instance, we have a flock of 100 breeding ewes, and are to select bucks from one or two classes, both of which, for constitution, size, and form, are equally good; the one with an ordinary fleece can be obtained for three dollars; the other, with a prime fleece, both alike as it respects quantity and quality, for ten. Which shall we choose? From a knowledge of the properties that constitute the intrinsic value of a sheep, and a knowledge of the male influence upon the offspring, I am satisfied that the progeny of the last named class, will give four ounces of wool more per head, that shall be worth three cents more per pound. Admitting that they shear three pounds and one-fourth of wool, worth forty cents per pound, here would be an improvement of ten cents in the quantity, and above ten in the quality, making twenty cents in the value of each fleece; to this we may safely add twenty cents for the increased value of the sheep for the future production of wool, and one-half of this sum for their increased value for breeding; making an aggregate of 50 cents on each individual offspring, which on 100 would amount to $50, quite a handsome little sum to add to one's annual profits. The statement may seem extravagant to some, but experienced breeders will tell you it is only a moderate estimate, and that too, when the ewes are not above a medium character. I know of flocks where five hundred dollars would be no inducement to the owner to use such bucks as are frequently used by nine-tenths of wool-growers. And notwithstanding all this, I fear there are not a few, who, sooner than pay $5 difference between two bucks, under the above circumstances, would ignorantly sacrifice ten times this amount, honestly believing it the best and most profitable course.

From what I have said, I would not have one infer that I always think the highest priced animals the best or the most profitable. A man's asking or paying a high price, adds nothing to the value. What I have aimed to illustrate, is, that we had much better pay a reasonable price for a good animal, than to use an ordinary one as a gift.—*Albany Cultivator.*

COUNTY ROADS.

To the Editor of the American Farmer.

MR. EDITOR:—I enclose a sketch of a cross-section of our county roads, as they are, and as (I humbly think) they should be.

The Suberintendant finds his gutters filled up, and one opened by the rains through the centre of the road; and instead of rounding up the earth as shown by the lines *a. a. a.*, he is content to throw it out of the gutters, leaving the greater portion on the sides, as at *b. b.*—if the middle of the road gets any, it is not much, perhaps he may raise it to *d.* Every rain on such a road will wash through the centre, as being lower than the sides and prevented from reaching the gutters.

The break-waters are often so abrupt as to present the appearance of a 24 pounder being covered up, and break more carriages than would pay for their being made in a gradual slope.

These hints are for our Superintendants, it they will take them from an old Engineer, and

Georgetown, D. C. TAX-PAYER.

From the Albany Cultivator.

CHEMISTRY APPLIED TO AGRICULTURE;

OR, WHAT MANURE DOES THIS FIELD NEED.

This inquiry is beyond question one of the most frequent and important that presents itself to the farmers

With the light which has, within the last few years, been thrown upon the subject of manures, their nature, and the secret of their value, something like a practical course has been revealed. It may be illustrated as follows:

If a soil fails to produce a given crop, it is because it either wants the *requisite texture*, or it wants certain essential inorganic ingrediants, or it may be deficient in both.

If vegetable refuse in sufficient quantity has been strown over and plowed in, the deficiency of one or more *essential inorganic ingredients*, must be considered the solution of the failures.

Now how shall this deficiency be ascertained? How shall it be determined what a soil needs?

It may need gypsum, or phosphates, or potash, or soluble silica, or lime. It may be benefitted by ashes, or poudrette, or guano, or fish. But it probably does *not* need *all*, and would not, probably, be equally benefitted by them severally.

Which, then, shall be selected? How shall any one, without aid, be enabled to determine what will benefit the soil *most?*

The following suggestions are made in general reply to this inquiry:

Having prepared a few square yards or rods, so that the texture shall be all that is desired, let equal areas—six feet square each, for example—be accurately measured and staked. If the soil in the same field be variable, each kind may be treated for a separate experiment.

Then let equal quantities by weight, of a thoroughly pure grain, wheat, or rye, or oats, or any other it may be desired to try, be sown and covered, in these several areas. Only one kind of grain will be employed in the experiment. If others are to be tried, let separate areas be selected and prepared—a suit for each grain.

Then take small quanities of gypsum, potash, soda, ashes, bone-dust, treated with diluted sulphuric acid, night soil, or any of the so called manures it may be wished to try, and put them upon or near the surface of the soil. If deeply buried they might be dissolved by rains, and carried down beyond the reach of roots.

Now all will receive from the frost, the rains, the dew, the sunshine, and the draught, the same treatment.—From the native soil they will derive equal measures of nutriment.

But from the added manures they will derive unequal advantage. Some of the additions will contain a desired ingredient—others will not; and the relative values will be indicated in the relative weights of the ripened grain at harvest.

The seed was weighed. The harvest must be weighed. The better manure will be pointed out in the higher weight and the plumper appearance of the grain.

That the manure may be compared, and the relative profits of this or that readily estimated, positive quantities should be employed, that is, such, that by measure or weight, the cost of that used may be accurately known.

The weighing for the occasion if not otherwise convenient, might be made with the sugar and tea scales of the nearest grocer. As the grain to be sown is, for each lesser piece of ground to be the same in weight, the quantity for one being determined, it may be placed in one scale pan, and the other parcels severally balanced against it.

There is some trouble in all this care about *quantities:* but if the conviction be deepened that a faithful attention to them is indispensable in experimentation that is to be of value, it may perhaps be more cheerfully engaged in.

It sometimes, indeed frequently, happens that farmers purchase large quantities of a given manure because they have learned that it had been found serviceable in particuliar cases. They hope to reap a profit commensurate, within certain limits, with the amount of manure employed; regardless of the greater or less correspondence there may exist between the soils upon which it had been found profitable and their own. They employ it. They are disappointed. The manure does *not* contain what *their* soils need, though it may have been admirably suited to the improvement of others.

What the producer wishes in making purchases of raw material, is, to obtain as much of that which can be used, and as little of that to be thrown away, in a given quantity, as may be.

So with the grain grower. He wishes to pay for *just that* which will grow wheat, or corn, or oats. Other materials, of no service to the immediate crop, only to be washed away by rains before a seed demanding them shall be sown, he cares less to pay for.

E. N. HORSFORD.

Cambridge Laboratory, May, 1847.

FLORICULTURE.

WORK FOR NOVEMBER.

Prepared for the American Farmer by S. Feast, Florist.

Azaleas.—Water sparingly during this and the ensuing month.

Cactuses.—Keep moderately dry and cool until the buds begin to advance in the spring.

Camellias.—The buds of these will now be rapidly increasing in size. Be particular to give plenty of water at the roots—and should the atmosphere of the house be dry, syringe frequently. Sow the seeds in a light and fresh soil.

Tuberose, Jacobean Lilly, Tiger flower, and other tender bulbous roots, should be taken up at once and placed away secure from frost until May, when they may again be planted in the borders.

Pœonies may still be transplanted with success.

Dwarf Rocket Lockspur seeds may still be sown.

Roses intended for blooming in pots in the spring, should be taken up and potted at once.

Chrysanthemums in pots—give plenty of air and water, using occasionally a little liquid *guano.*

Verbenas, Stocks, Carnations, and other half-hardy plants, should be housed forthwith.

Tulips, Hyacinths, and other hardy bulbs, should be planted at once, in order to ensure a fine bloom. For cultivation of, in pots and glasses, see vol. 2nd American Farmer, page 151.

Greenhouse Plants.—Give these plenty of air, and attend to watering carefully. Syringe frequently and fumigate upon the first appearance of the *green fly.*

Dahlias should now be taken up, labelled, and put away dry, secure from frost.

Geraniums.—Keep these near the glass to prevent them being drawn.

THE POTATO ROT.—We regret to learn, as we do from various quarters, that the rot has again made its appearance in the Potato crop. We hope it will not prove to be general. The potatoes brought to the Baltimore market were never finer, than they are this season—and they bring a reasonably fair price—retailing in the market at 75 cts. per bushel.

METEOROLOGICAL TABLE,

From the 28th of September, to the 27th of October.
Kept at Schellman Hall, near Sykesville, Carroll county.

Taken at 6 o'clock, a. m., 2 o'clock, noon, and at 6 o'clock.

	Wind.			Temperature			Remarks.
27	SE	SE	SE	57	68	61	Cloudy
28	S	W	W	62	72	63	Fog Clear
29	W	W	W	52	68	65	Clear
30	NW	W	W	65	69	73	Clear
1	SW	SW	W	54	76	72	Clear
2	SE	W	SW	55	75	56	Rain 1 1-2 in Clear
3	W	W	W	44	75	56	Clear
4	N	W	SW	42	68	60	Clear
5	W	S	W	43	69	63	Clear
6	S	SE	SE	59	63	64	Rain, Cloudy
7	NE	S	S	60	66	65	Rain, Heavy gust
8	SE	W	W	60	67	63	Rain 5 in Clear
9	NW	NW	W	54	66	64	Clear
10	W	SW	SW	53	79	67	"
11	W	W	W	48	63	65	"
12	W	S	SE	44	63	55	Cloudy, rain at night 1¼ in
13	W	W	W	50	56	55	Clear
14	W	W	W	42	58	53	Frost, Clear
15	NW	W	W	35	55	48	Clear
16	SE	SE	SW	32	56	48	Clear
17	S	S	S	40	64	65	Clear
18	S	S	S	46	65	60	Fog Clear
19	S	S	S	50	75	65	Fog, Clear, Rain 1 1-8,
20	W	SW	SW	51	64	54	Clear
21	SW	SE	SW	45	60	55	"
22	SW	S	S	54	68	60	Clear, Rain1 1-10 in
23	W	W	W	58	58	50	Cloudy, Clear
24	NE	NE	NE	46	53	58	Rain ¼ in
25	W	W	W	68	65	60	Clear
26	NW	NW	NW	38	55	43	Clear
27	NW	NW	NW	30	45	40	Ice, Clear
28	NW	NW		28	43		Clear

BALTIMORE MARKET, OCTOBER 28TH.

There was a pause in the grain and flour market, on the receipt of the news by the last steamer—but if was very soon apparent that the demand for home supplies was so great, in consequence of the great freshet which interrupted the carriage of produce to market on the sea-board—that no decline in prices would be the consequence of the intelligence of the favorable state of the harvest in Europe. There has, however, been a slight decline within a few days, compared to the prices obtained a week or two ago. We quote now, for Howard st. Flour, $6.25, but no buyers, tho' supply in first hands is small—City Mills $6.12 a 6.25, stock also light—Susquehanna, none—Rye Flour, $4.87a$5—Corn Meal, $3.62 per bbl.—Wheat, good to prime red, $1.28a1.30, white $1.28; for family flour, $1.33a1.37, supply of all kinds small—Corn, prime 66 a68, for white and yellow; some inferior, was sold at 60a65—some new corn has been sold at 50a58, according to dryness—Oats, 38 a 40—Rye, 82a85, sales, and in request—Beans, $1.20 a 1.25, scarce—Peas, none—Clover and Timothy dull, no sales to report—Bacon, dull, sides have ranged from 7½ to 8, and shoulders 7½ to 8—Hams, scarce, good are held at 11a12—Hog, live, $6.25a6.62, sales to a fair extent—Pork, mess, $14.50 a $15—prime, $10.50 a $11, firm—Beef Cattle, prices range from $1.62a$3 per 100 lbs. on the hoof, equal to $3.25a5.75 nett, and averaging $2,37, with a tendency downwards—there were 1900 head offered this week, of which 550 were purchased by packers and butchers, 950 head driven to Pennsylvania, and 400 head remain over—Lard, in kegs, 12c.; in bbls. 10a10½—Butter, Glades, 15a16; Western, 12—Cheese, Western 7¾a8; Eastern 8½a10—Fish, herrings 4,87a5; Shad, nominal, $6,75—No. 1 mackerel 11,50; No. 2, 7,75; No. 3, $5,75 per bbl.—Cotton, ord. upland 9a9½; mid. to good do. 10a10½; fair do. 10¾a11—sales of La. 10c. for middling, and 11½ for good middling to middling fair—the average declines since last steamer has been about 2 cts.—Coffee, Rio, sales at 7 1-8a7½; Laguayra 7 3-8a7¾—Wood, oak $4.25a4.37; hickory 5a5,50; prime 2,75a3—Stone Coal, 5,50a$6—Feathers, 32a34, wanted—Hemp, in fair demand—Hay, $18 for best timothy– Hops 10a 12½ per lb.—Molasses, N. O. 34½, market heavy, but little demand—Potatoes, 50 to 56½—Sweet do, 62½—Rice $4,50a4,62 per 100 lbs. The Tobacco market is quiet- the receipts are light, and the principal part of that for sale being of a low grade; all good kinds meet with ready sale as fast as inspected of Maryland and Ohio—Colory Tobacco is still in good demand, and will bring the highest quotations; we quote Md. 2 to $3 for infer. and com.; $3a7,50 for good common; 5a9 for good; $6a20 for fine and better qualities; Ohio common $2,35a$2,50; good common 2.75a$3; reds $4a10; fine wrappery red $13a20; spangled $4a10; yellow $6a12. The inspections for the last four weeks, Md. 4122 hhds.; Ohio, 2114; Virginia, 1; Ky 64; Total 6301 hhds. Wool, tub washed 30a31, packed 28a30—Whiskey, 30a31, in hhds. and bbls.

TO FARMERS AND PLANTERS.

A. D. CHILDS' PATENT HORSE-POWER.

A GREAT IMPROVEMENT! This Horse Power has undoubtedly many and very great advantages over all other Horse Powers in this country, in the following particulars, viz:

1st, It is all iron, except the sweeps (or arms) to which the horses are attached, and of course is very durable.

2dly, The main part of this Power, including the main wheel, is all cast together in one piece, and it is cast round, giving it great strength and permanency.

3dly, This power, when all together in running order, (except the sweeps,) weighs about 690 pounds, and occupies about the space of a common sized was tub; and the entire machine, including the sweeps, can be moved in a common one-horse cart.

4thly, The wheels are all covered out of sight, and secured from dust, or any possible harm to its attendants.—A very important consideration.

5thly, The ease with which this Power is propelled, perfectly adapts it to the use of one horse, whilst from its peculiar construction, it combines strength sufficient for six common sized horses; and it is confidently believed that two horses with this power, will do the work of at least three with the common powers now in use.

PRICE $110—or without the wood work of the sweeps $100.

The subscriber would invite his patrons and the public generally to call and examine this Horse Power for themselves, and also his Threshing Machines, as he has several on hand of supesior workmanship. He has also on hand a quantity of Ploughs of all sizes and various patterns and woll made, with a great variety of other Implements, such as Wheat Fans, Harrows, Swingle-trees, Corn Shellers, Oorn and Cob Crushers, &c. &c., which he will sell very low, as he wishes to close out his old stock, which he has been several years reducing.

Cylindrical Straw Cutters and Plough Castings on hand at Wholesale & Retail as heretofore. J. S. EASTMAN,

In the rear of his old Store, No. 180 PRATT STREET, near HANOVER-ST. Entrance by alley .hrough the Front Store.

Sep 1

10,000 Copies in 4 Months!

COLE'S AMERICAN VETERINARIAN,

OR Diseases of Domestic Animals, showing the Causes, Symptoms, and Remedies, and rules for restoring and preserving health by good management, with full directions for Training and Breeding, by S. W. COLE, Esq.

This is emphatically a *Book* for *every Farmer*, and no Farmer's Library is complete without it. The demand for TEN THOUSAND COPIES in the short space of four months, speaks volumes in favor of the work. The Farmer has in this neat and compact vol. a complete ENCYCLOPEDIA, in which he may find the whole subject of the *Treatment of Domestic Animals*, fairly discussed, and rules and remedies fully and clearly prescribed.

Highly recommendatory notices, have been received from many of the most distinguished Farmers and Editors in the country. The following short extracts show in what estimation the work is held.

[From Ex-Governor Hill, of N. H.]

"Mr. Cole has shown himself well qualified for the compilation of this work. We understand that it has already had a free and extended sale; many times its price to almost any Farmer, may be saved in its purchase."

[From J. M. Weeks, of Vermont.]

"The American Veterinarian is the best book of the kind I have ever seen. Every Farmer ought to have one."

[Christian Mirror, of Portland.]

"We think no Farmer would willingly be without this Book, after glancing at the table of Contents."

[Albany Cultivator.]

"This will be found a useful book. It speaks of diseases under the names by which they are known in this country, and the remedies prescribed are generally within reach of every Farmer, and may frequently be found on his own farm. We second the suggestion that it should be in the hands of every Farmer."

[American Agriculturist.]

"We recommend to all who keep Domestic Animals, to procure Mr. Cole's new Book. The lives of many valuable animals might be saved by following his directions."

The price of this valuable Book, finely bound in leather is 50 cents.

WANTED, 50 active, intelligent, and enterprising AGENTS, to sell this work, two in each State of the Union. A small capital of from $25 to $50, will be necessary for each Agent. Address, post paid, the Publishers.

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For Sale by CUSHING & BROTHER, Baltimore.

☞The above work is also for sale at the bookstore of the "AMERICAN FARMER," No 2 Jarvis' Buildings, North street.

THE SUBSCRIBER takes pleasure in returning thanks to the many gentlemen who have favoured him with their MILL-WORK; also to the farmers and planters for their liberal support in the Machine line, and would respectfullyy inform them, that his endeavors to please will continue unremitting. He is prepared at all times to build any of the following kinds of MILLS. Overshot, Pitch Back, Breast, Undershot, Reacting, Steam, Wind, Tide, Horse-power, or Tread Mills; and having the best of workmen employed at pattern and machine making, he can at all times furnish the best articles at the lowest prices, such as Horsepowers, Pettigrew Shellers, Murray's Shellers, 4 kinds hand and power Shellers, portable Mills adapted to any power, Corn and Cob grinders, Straw, Hay and Fodder Cutters, Carry-log and Mill Screws; also manufactures Hoisting Machines, Hoisting Cranes, Pile Drivers Turning Lathes and Steam Engihes; and any kind of Machine, Model or Mill-work built to order. Any kind of Castings and Smith-work at the lowest prices. I warrant all Mills planned and erected by me to operate well. JAS. MURRAY,

Millwright, York near Light st. Baltimore.

Also for sale, Jas. Murray's patent separating Shellers, which shells and puts the corn in perfect order at the same time, for the mill or for shipping—Persons living near the city can bring with them one or two barrels of corn, and give the sheller a fair trial before purchasing.

He has also for sale, the following second hand Machinery: 2 pair 4 ft 6 in. French burr Millstones, with all the gearing; 1 pair 3 ft 6 in. French Burr Millstones, with all the gearing; and some Saw Mill work—the whole are good, and any or all of the above will be sold low. n1

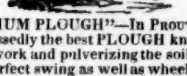
HALIFAX, N. C., August 25th, '47.

Mr. JAS. MURRAY,—*Dear Sir:*—This is to certify that I have used your fans during the last spring and summer, and feel no hesitation in saying they are the best by far, I ever saw, I fanned with one fan, one thousand barrels of corn in one day—and in one day fanned one thousand bushels of wheat, as it come from the thresher. They will do as much as any two I ever had, in the same time. Yours, &c.

W. B. HATHAWAY.

"Spade labour, the perfection of good husbandry."

PULVERIZATION.



DECOMPOSITION.

THE "PREMIUM PLOUGH"—In PROUTY & MEARS' No. 5 1-2, "confessedly the best PLOUGH known in this country for beauty of work and pulverizing the soil," we have combined the most perfect swing as well as wheel Plough, connected also with the principles of self-sharpening and centre-draught, which with the facility of turning it into a Tandem 2, 4, or 3 horses abreast Plough in a minute of time, renders it the NE PLUS ULTRA of perfection. During the past season it received the first premium for the BEST PLOUGH, at Philadelphia; a first, second and third premium at New Castle county, Del.; the Imperial Medal of Russia, of massive gold, value $300; and at Prince George's society, Md. the highest testimony of approbation, in not permitting it to compete, having already received the first premium as "the *BEST PLOUGH* for general purposes." Their one-horse Plough No. 2 1-2, is strongly recommended for light soils and horticultural purposes, being built after the same model, self sharpening, and carrying a sod furrow 10 in wide with great ease and precision.

In addition to the above, the Premium list of the Prouty & Mears' Centre Draught Plongh for the present season, is as follows, viz:

New Castle Co, Del., 6 premiums out of 8, including the first two premiums.
Concord, Mass., 5 premiums out of 8, furrows 10 in. deep.
Philadelphia, 1st premium for the best plough, of the trial.
Taunton, Mass, 5 premiums, including the three first premiums.
Newtown, Bucks Co. Pa., "the best Plough for pulverizing the soil and burying the stubble."

For sale at No. 55 LIGHT ST. Baltimore, Mr. EZRA WHITMAN being appointed sole Agent for sales in Baltimore and vicinity. dec 1

SMULL & Co.

No. 60 PRATT-ST. and EAST FALLS AVENUE,
3 doors north of Pratt-street Bridge,

HAVE FOR SALE, *STEAM BOILERS* of various sizes, well adapted to Farms, for cooking food or Cattle—as Economy is the order of the day, they can safely recommend them before any other Boiler now in use, for saving of fuel and labor.

They manufacture likewise to order, Cylinder or Portable Boilers, Force and Light Pumps—Copper, Wrought-iron, and Lead Pipes—Brass Cocks, Couplings, and all other apparatus for *Steaming* purposes.

☞All orders thankfully received and promptly executed.

Ap. 1

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